

# **Urban Development and Retail Structure in Beijing**

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In Partial Fulfillment of the Requirements  
for the Degree of Doctor of Philosophy  
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**By**

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## **ABSTRACT**

The purpose of this study was to examine the evolutionary processes of the urban structure and retail pattern in Beijing as the city was transformed from a traditional national capital, through a socialist political centre, to a modern metropolis. The understanding of the processes will allow us to comment on the existing models of Third World urban development. While a theoretical framework was put forward to establish the relationships among the political-economic-social fabrics, urban development and retail structure, analyses were made involving factors at three levels to interpret the spatial processes of urban functions and retail structure reorganization.

The study revealed that urban development in Beijing has shown three distinctive stages. Each stage had its prevailing factors, resulting in different forms of urban development. Beijing was originally built according to the concept of traditional Chinese capital city design. During the socialist period, the city was transformed toward egalitarianism in the practices of socialist ideology, planned industrialization, and social controls. Since the late 1970s, the reform and open-door policies have been generating new economic and social forces that have reshaped Beijing's urban development. As a result, competitions and transformations among urban functions caused by the new forces have led to a series of spatial processes in the city. Along with urban expansion, population increased rapidly in the outer zone of the city, with concomitant depopulation in the inner city. As in other Third World cities, temporary residents/immigrants increased significantly in Beijing, forming peasant enclaves in the urban fringe areas. Industrial plants were also relocated from the inner urban



districts to the industry tracts in the outer regions. The establishment of development zones and industrial parks in the suburbs also changed the industrial landscape in the city. Meanwhile, several major business centres have been developed, among which the most spectacular are the emerging CBD in the city's east and the Financial Street in the city's west. Based on these processes, a dynamic urban structure model for the Chinese city was derived.

The spatial retail pattern in Beijing over the dynasties was basically dictated by the city layout and its social structure. It evolved from a mono-centre to a bipolar structure and was explicable with the central place theory. The existence of the socialist retailing in the city was a result of its centrally-planned system. Since the reforms urban development has resulted in significant changes in the transportation network and the distribution of market factors, which eventually led to the emergence of a multi-centre retail pattern. While the relics of the former administrative structure attempted to form *urban realms* of retail activities in the city, major new retail establishments tend to conform to the *interceptor ring model*. In essence, Beijing's contemporary retail structure represents a mixture of models based on both the planned system of the past and the prevailing market forces, even though the influence by the latter is growing.

## **DEDICATION**

**I dedicate this dissertation to my parents, with love and appreciation, for their strong support and encouragement in pursuing a Ph.D. degree.**

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## GLOSSARY

Chinese Romanization	Term in Chinese	Term in English
Bada xueyuan	八大学院	The Eight Major Institutes
Baisheng gouwu zhongxin	百盛购物中心	Parkson Shopping Centre
Bali (Paris) chuntian baihuo	巴黎春天百货	Spring Paris Mall
<i>Beijing Guihua Jianshe</i>	<北京规划建设>	<i>Beijing City Planning &amp; Construction Review</i>
Beijing jingji jishu kaifa qu	北京经济技术开发区	Beijing Economic and Technological Development Area
Beijing xinjishu chanye kaifa shiyan qu	北京新技术产业开发试验区	Beijing Experimental Zone for the Development of New Technological Industries
Beijing xizhan	北京西站	Beijing Western Railway Station
Beijingshi baihuo dalou (Wangfujing)	北京市百货大楼 (王府井)	The Beijing (Wangfujing) Department Store
Buguan heimao baimao, zhuazhu laoshu jiushi haomao	不管黑猫白猫, 抓住老鼠就是好猫。	A good cat is one that is able to catch mice, no matter it is a black cat or a white cat.
Chaoqian shi	朝前市	The Chaoqian Market
Cheng jin jiao qu	城近郊区	Aggregated Urban Districts
Chengqu	城区	Urban Districts
Chengshi jima shichang	城市集贸市场	Urban markets
(Chengshi) Shucai shichang	(城市) 蔬菜市场	Vegetable markets
Chengxiang maoyi zhongxin	城乡贸易中心	The Urban-Rural Trade Centre
Da yuan	大院	Big yards
Da yue jin	大跃进	The Great Leap Forward
Dadu	大都	The Great Capital /Dadu
Dangdai shangcheng	当代商城	The Modern Plaza
Danwei	单位	Work-units
Dazhongsi (nongchanpin) pifa shichang	大钟寺(农产品)批发市场	The Big Bell Temple Wholesale Market
Dingqi shiyong shangdian	定期使用商店	Stores of periodically demand goods
Dong'an shangye jituan	东安商业集团	Dong-an Commercial Group
Dongfang guangchang	东方广场	The Oriental Square

Dongjiao gongye qu	东郊工业区	The eastern suburban industrial district
Dongyue miao hui	东岳庙会	The East Peak Temple Fair
Er (san, si, wu) huan lu	二(三, 四, 五)环路	The Second (Third, Fourth, Fifth) Circle Road
(Fei) Nongye renkou	(非)农业人口	(Non-) Agricultural population
Fensan jituan	分散集团	Dispersed clusters
Fuxing shangye cheng	复兴商业城	Fuxing Shopping Town
Ge ziben zhuyi weiba	割资本主义尾巴	Cutting the capitalist tails
Gongxiao hezuo zongshe	供销合作总社	The General Supply and Marketing Co-operatives
Gongye qu	工业区	Industrial districts
Gongye xiaoqu	工业小区	Industrial tracts
Guangda (jituan) gongsi	光大(集团)公司	The Ever-bright Corporation (Group)
Guojia waihui guangli ju	国家外汇管理局	The State Exchange Administrative Bureau
Guojia zhengquan guanli weiyuanhui	国家证券管理委员会	The State Stock Market Administrative Commission
Guonei maoyi bu	国内贸易部	The Ministry of Domestic Trade
Huang cheng	皇城	The Imperial City
Jian feng cha zhen	见缝插针	Sticking in pins wherever there are rooms
Jiedao banshichu	街道办事处	Urban neighborhood (office)
Jin jiaoqu	近郊区	Innner Suburban Districts
Jinrong jie	金融街	The Financial Street
Jun wei chen gang	君为臣纲	Ruler guides subject
Juzhu (xiao) qu	居住(小)区	(Small) Residential districts
Kaifa qu	开发区	Development zones
Kexue cheng	科学城	The scientific city
Lanyin hukou	“蓝印”户口	Blue-chop household registration
Lianchan chengbao zerenzhi	联产承包责任制	The production contract responsibility system
Liudong renkou	流动人口	Floating population
Mozhe shitou guohe	摸着石头过河	Crossing the river by groping for stones

Nei cheng	内城	The Inner City
Nongye shengyu laodongli zhuanyi	农业剩余劳动力 转移	Shift of surplus agricultural labour to non-agricultural sectors
Richang shiyong shangdian	日常使用商店	Stores of daily goods
Saite gouwu zhongxin	赛特购物中心	Scitech Shopping Mall
San da cha bie	三大差别	The three major differences
San da jian (xiaofeipin)	三大件	The three major consumer goods
San ge "fuwu"	三个“服务”	The Three Services
Shangye bu	商业部	The Ministry of Commerce
Shangye zhongxin	商业中心	Retail centres
She ji tan	社稷坛	The Altar of Land and Grains
Shehui zhuyi gongshangye gaizao	社会主义工商业 改造	The Socialist Reconstruction of Industry and Commerce
Shengchan xing chengshi	生产性城市	A production city
Shenghuo bixu shangdian	生活必须商店	Stores of daily necessities
Shida jianzhu	十大建筑	The Ten Great Construction Projects
Shi guan xian /shi dai xian	市管县/市带县	County under the jurisdiction of the city government
Shi shucai gongsi	市蔬菜公司	The Municipal Vegetable Company
(Shucai) Shougou dian	(蔬菜)收购点	(Vegetable) Purchasing stations
Tian tan	天坛	The Temple of Heaven
Tudi shichang	土地市场	Land Market
Wai cheng	外城	The Outer City
Wai guo qiye zhujing daibiao jigou	外国企业驻京 代表机构	Foreign representative offices in Beijing
Wailai renkou	外来人口	The population coming from outside
Waishang touzi xing gongsi	外商投资性公司	Foreign investment companies
Wankelong pingjia shangdian	万客隆平价商店	Wankro Parity Store
Wantong xinshijie guangchang (gouwu zhongxin)	万通新世界广场 (购物中心)	Vantone New World Square (Shopping Centre)
Wei (jiu) fang	危(旧)房	Dilapidated housing
Wei renmin fuwu	为人民服务	To serve the people
Wenhua da geming	文化大革命	The Great Cultural Revolution
Xian nong tan	先农坛	The Altar of Agriculture

Xiangzhen qiye	乡镇企业	Township and village enterprises
Xiao shehui	小社会	A small society
Xiaofei (xing) chengshi	消费(性)城市	A consumption city
Xidan shangchang (jituan)	西单商场(集团)	Xidan Emporium (Group)
Xin dong-an shangchang	新东安商场	New Dong'an Plaza
Xin zhongguo diyi dian	新中国第一店	The first store of new China
Xinchou heyue	辛丑和约	The Xinchou Peace Treaty
Yansha youyi shangcheng	燕莎友谊商城	Yansha Friendship Shopping City
Youyi shangchang (Haidian)	友谊商场	The Friendship Emporium
Youyi shangdian (Chaoyang)	友谊商店	The Friendship Store
Yuan jiaoqu	远郊区	Outer Suburban Districts
Yuegezhuang (nongchanpin) pifa shichang	岳各庄(农产品)批发市场	Yuegezhuang Wholesale Market
Zanzhu renkou	暂住人口	Temporary residents
Zhengqi fenli	政企分离	Separation of administration from business
Zhengzhi shi tongshuai, shi linghun.	政治是统帅，是灵魂。	Politics is the commander, the soul.
Zhonggulou shi	钟鼓楼市	The (Bell and Drum) Towers Market
Zhongguo guoji maoyi zhongxin	中国国际贸易中心	China International Trade Centre
Zhongguo guoji xintuo touzi gongsi	中国国际信托投资公司	China International Trust Investment Corporation (CITIC)
Zhongguo renmin yinhang	中国人民银行	The People's Bank of China
Zhongguo yinhang	中国银行	The Bank of China
Zhongxin pifa dian	中心批发店	Central distribution stores
Zhongxin tai	中心台	Centre Terrace
Zhongyang shu danwei	中央属单位	Units administrated by the central government
Zhuzhai shangpinhua	住宅商品化	Housing commercialization
Zhuzhai tongyi kaifa	住宅统一开发	Integrated residential development
Zhuzhai zutuan	住宅组群	Residential blocks
Zi jin cheng	紫禁城	The Forbidden City
Zixuan shangchang	自选商场	Self-service stores
Zu miao	祖庙	The Ancestral Temple

## **Chapter 1 The Research Problem and Study Area**

### **1.1 Introduction**

Since the late 1970s, China and its urban development have significantly changed with the adoption of economic reforms and open-door policies (Pannell, 1990; Yeh and Wu, 1995). On the metropolitan scale, the changes involve the following aspects: (a) While the national economy is experiencing a transformation from a centrally planned system to one driven by market forces, economic restructuring is increasingly becoming the main force modifying the functions and landscape of Chinese cities. In this restructuring process, the service sector, which had been largely ignored since socialist China was established, is now playing a more and more prominent role in the urban development process. (b) As China's urban reforms initiated in the mid-1980s gradually introduced a variety of markets into urban activities, market developments have become a new focus in urban development. In particular, urban land market (*tudi shichang*) (Liu and Yang, 1990; The World Bank, 1993; Zhu, 1994) and housing commercialization (*zhuzhai shangpinhua*) (Lin, 1992; Chen and Guo, 1993) have become the most critical elements in re-shaping the Chinese city in the 1990s. Urban retailing, which is a part of the daily life of hundreds of millions of people, is both one of the most vigorous economic sectors and the most significant indicator for urban change. Meanwhile, these urban reforms are complicated by a number of complex problems. For example, with the relaxation of



household registration and rural-urban migration control (The State Council, 1984), much of the surplus farm labour created by rural reforms has become temporary residents of the city and entered the urban labour market (Goldstein and Guo, 1992; Ma and Xiang, 1998). (c) A vast amount of foreign investment, of which China was the world's second largest recipient next to the USA, has been stimulating a high rate of economic growth in the major metropolises and the coastal region of the country (Fung, Yan and Ning, 1992; Leaf, 1995), as well as changing the traditional socio-economic structure and creating new elements in the urban landscape. Compared to the investments in the 1980s which were mainly directed toward the coastal development zones and in the manufacturing sector, new foreign capital, either in joint ventures, co-operative or wholly foreign controlled enterprises, has been allowed to invest in the service sector in many large cities since the early 1990s. (d) To cope with new challenges and to compete for being regional, national and even international centres, many Chinese cities have been modernized, improving their urban infrastructures, living and investment environments, and especially redeveloping the old city (Leaf, 1995). This redevelopment includes relocation of old city residents (Wu, 1991), augmentation of commercial facilities and removal of industrial establishments from the inner city.

Despite such urban changes, little theoretical or empirical research has been done at the metropolitan level on China's urban spatial structure, especially on urban commercial activities. Indeed, a substantial amount of literature on urban China has been produced within and outside the country, and remarkable progress in Chinese urban geography has been made since the late 1970s. Nevertheless, a strong emphasis

has been placed on urbanization (Kirkby, 1985; Chan, 1994; Pannell, 1995; 1990) and its relationship with the post-1978 economic reforms. Changes in urban population and the system of cities, together with the impacts of new policies on urban development, have been often discussed. However, relatively little effort has been made on the changing urban structure in the context of China's post-reform era. The study of retail change with urban spatial processes under the impact of socio-economic transformation has been largely neglected. In particular, many Chinese cities have experienced tremendous socio-economic changes through the dynasties, the socialist period, and the reform era. None of the existing literature has endeavoured to address the theoretical framework for interpreting the urban spatial processes, in association with retail structure evolution, in a Chinese city throughout those periods. Therefore, this research will examine the evolution of urban development and retail structure in a Chinese city throughout its history, and particular attention will be given to the changes that occurred during the period of national economic reform.

## **1.2 The Research Problem**

The central questions addressed in this research include three areas. The first area of research deals with questions about *change*. What changes have occurred in urban development and retail structure in the Chinese city? How did the urban activities grow under the economic reforms during the last two decades? What spatial features have emerged and what are the spatial processes involved in the change of retail functions? To reveal the patterns of changes, one needs to examine the distribution of

a variety of urban elements and retail activities during the historical periods and the era of reform.

The second area of research enquires about the causes of the above changes. What are the major driving forces that are responsible for these spatial features? How do they affect the changes of retail patterns as well as the general spatial structure of the Chinese city? These questions involve an examination of many factors that lead to the change of urban function and spatial processes. After a long historical development and a period of socialist reconstruction, the spatial pattern and functional evolution in some Chinese metropolises have become highly complex. Within this distinctive political and socio-economic context, can a theory be put forward to explain the mechanism and spatial behaviour in the present Chinese urban restructuring?

The third area of research examines the model for describing these patterns and changes. Can any existing models be employed to describe the pattern of urban development and the change in retail structure in the Chinese city during the past two decades? To what extent are the existing models able to explain the changes? While Chinese decision makers and many urban planners usually prefer to apply the western planning concepts and models to the design and construction of Chinese cities, recent research undertaken by western scholars suggests that major Chinese metropolises tend to be similar to other Third World cities (Gaubatz, 1995a, 1995b; Leaf, 1995). Therefore, this investigation will also compare the features of the Chinese city to its Third World counterparts.

### **1.3 Defining the Study Area**

Beijing has been chosen in this research for the following reasons: First, Beijing is a representative Chinese city. Among China's metropolises with a population over five million, Beijing was the only one that was built according to traditional Chinese urban design, and was the least influenced by the West during the treaty port era. Second, as the national capital and the second largest city in China, Beijing is among the few Chinese metropolises with an international reputation. Since the reform, it has been one of the leading cities receiving the most foreign investment. Third, with its political importance and population size, Beijing has significant economic and social influences on national urban development, as it has long served as an urban construction model for provincial capitals and many other cities in the country. In addition, my personal experience of living and working in Beijing for over a decade has given me a better understanding of the city than any other city in China.

Beijing is a special municipality directly under the jurisdiction of the central government. It has the same administrative hierarchy as the provinces. The special municipality consists of 16,800 square km with a total population of 11.84 million<sup>1</sup> in 1996. Since this research does not focus on the whole municipality, it is necessary to define the study area in order to interpret its spatial relationship with the entire urban region.

#### **1.3.1 The Administrative Structure and the Built-up Area of Beijing**

The administrative structure is important for Chinese urban studies because most enumerations of urban statistics are based on it. For management purposes, all administrative units in China are classified either as urban or rural, which basically

corresponds to the major category of their residents. Under the household registration system, Chinese population is classified as either agricultural or non-agricultural according to the individual's occupation.<sup>2</sup> The majority of the population in urban areas is non-agricultural, whereas rural areas have a dominant agricultural population. Compared to counties or townships in rural areas, district (*qu*) or urban neighbourhood (*jiedao banshichu*)<sup>3</sup> status is granted only to cities and towns. In China change of population from agricultural to non-agricultural leads to urbanization and to the conversion of administrative division from rural to urban.

Beijing Municipality consisted of ten established districts and eight surrounding counties in 1996.<sup>4</sup> The districts of Dongcheng, Xicheng, Chongwen, and Xuanwu comprise essentially the old city area, and their permanent residents are all non-agricultural. They are designated as *urban districts*. Within the *inner suburbs*, the districts of Chaoyang, Haidian, Shijingshan and Fengtai have been dominated by a non-agricultural population and their areas have been largely developed as the built-up area. Mentougou and Fangshan are classified as *outer suburban districts*. Although the outer suburban districts have been recognized as "urban" in the statistics, they are not part of the built-up area. All counties under the jurisdiction of Beijing Municipality that surround the suburban districts are classified as rural.

There were 117 urban neighbourhoods in Beijing Municipality in 1996. Within the four urban districts and four inner suburban districts, there were 102 urban neighbourhoods, among which 94 formed the core of the built-up area. With rapid urban sprawl occurring over the urban fringe, the number of urban neighbourhoods that form the built-up area has also been on the increase. In fact, when the built-up area

expanded from 373 sq. km in 1985 to 487.7 sq. km in 1996, it incorporated 14 newly established urban neighbourhoods.

### **1.3.2 The Beijing Metropolitan Area**

As in other Third World cities, transportation facilities in Chinese cities could not support massive commuting between the central city and its surroundings before the reform. Consequently, suburbanization did not appear in Chinese cities during the pre-reform era. In addition, since the household registration tied to *de jure* rather than *de facto* residence, few people were willing to migrate out of the central city, and some commuters even followed a reverse pattern to that of the Western cities (Sun, 1994). Since an administrative system of “county under the jurisdiction of the city government (*shi dai xian*)” was introduced in the early 1980s (Ma and Cui, 1987), the city has been playing a leading role in the economic development of its hinterlands. Recent economic reforms have not only contributed to the revitalization of the rural economy but also have induced closer socio-economic ties between the central city and its countryside (Tan, 1993).

Metropolitan areas exist in Chinese cities, even though they are not the result of commuting. The author’s empirical study revealed a close relationship between the economic development in Beijing’s surrounding counties and their spatial linkage with the central city (Sun, 1992). The average number of daily passengers travelling from the central city to each county,<sup>5</sup> as well as its ratio to a county’s total population, shows a positive relationship with the characteristics of non-agricultural development, in particular the percentage of non-agricultural population and the percentage of non-agricultural workers among total rural workers.<sup>6</sup> Growth of non-agricultural population

was mainly a result of satellite town development which depended on the state investment, representing a "top-down" force in the formation of Beijing's metropolitan area. Non-agricultural economic development in Beijing's surrounding counties has gradually become more dominant, ultimately promoting economic integration with the central city. It develops through co-operation between enterprises in the central city and those in the surrounding counties, and it acts as a "bottom-up" force promoting their economic and social integration. While both factors appear to be consistent with the general theory of urbanization, the formation process and spatial pattern of Beijing's metropolitan area are quite different from those of the west.

Table 1-1 Non-agricultural Development in Beijing's Surrounding Counties 1990-1996

Name of District or County	% of daily outbound passengers to the total population (1990)	% of non-agricultural population (1990)	% of non-agricultural rural labour (1990)	% of non-agricultural population (1996)	% of non-agricultural rural labour (1996)	Distance between the central city and county towns (km)
Mentougou	4.15	60.50	55.52	62.95	66.40	20
Fangshan	1.75	30.00	57.87	33.59	64.16	42
Changping	2.29	33.42	57.45	38.17	63.50	40
Shunyi	2.09	12.86	64.16	17.49	67.73	29
Tongzhou	1.90	23.18	53.23	27.22	59.96	18
Daxing	1.83	21.04	49.34	25.66	37.68	22
Pinggu	1.46	10.64	47.64	19.89	51.81	71
Huairou	1.48	17.06	52.75	26.24	61.05	53
Miyun	0.65	14.52	47.03	18.98	55.38	73
Yanqing	0.99	14.98	38.92	19.12	31.96	79

Source: 1. The author's investigation in 1991, See Sun (1992).

2. *Beijing Statistical Yearbook 1997*, pp. 449-490.

The Beijing metropolitan area was defined by the value of greater than 1.5% for the proportion of average daily outbound passengers to a county or district to its total population in 1990 (Table 1-1). It included Mentougou, Fangshan, Changping, Shunyi, Tongzhou, and Daxing (Sun, 1992). This area has level terrain, with a dense population and relatively developed agriculture and industry. Owing to economic growth and urbanization, satellite towns and rural non-agricultural activities expanded further during the following six years. By using the regression model of 1990, the simulation shows that the Beijing metropolitan area in 1996 should include all the municipal counties except for Yangqing. Even without Yanqing, the municipality closely corresponds with the metropolitan area, forming a comparatively complete urban setting.

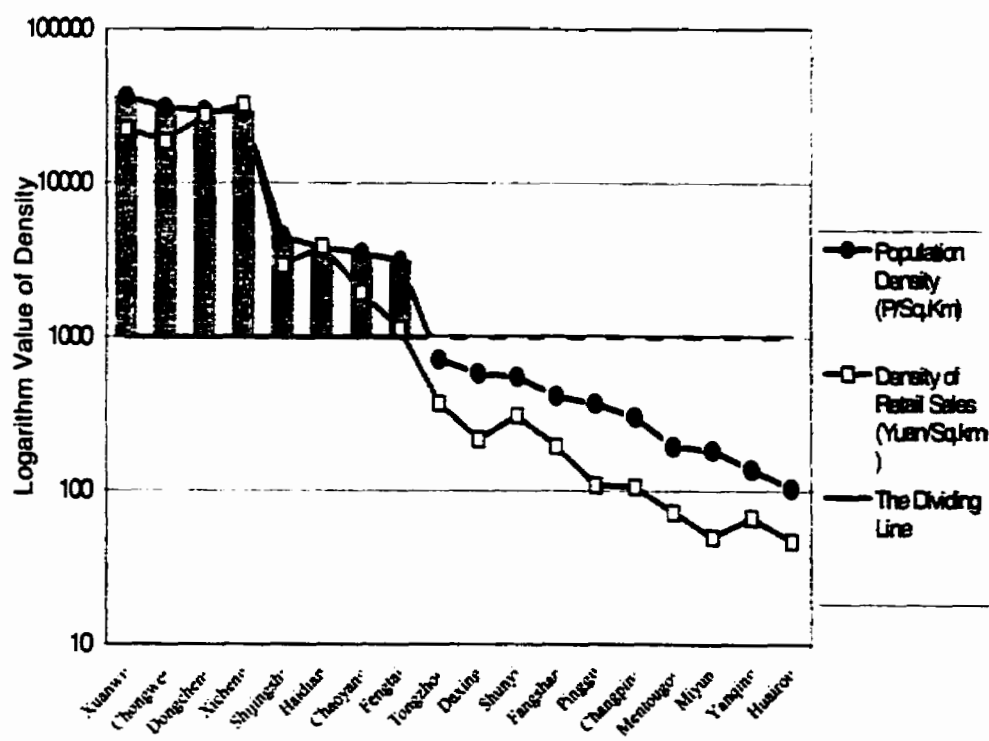
#### **1.4 The Basic Structure of Beijing's Metropolitan Area**

The internal structure of the metropolitan area is uneven in terms of its landscape, functions, population distribution, and economic activities. With respect to population density and economic activities, one can identify three zones from the core districts to the peripheral counties (Figure 1-1). In 1996, population density in the four urban districts (Dongcheng, Xicheng, Chongwen, and Xuanwu) was the highest, with an average of 30,560 persons per square kilometre. The four suburban districts (Chaoyang, Fengtai, Shijingshan, and Haidian) had an average density of 3,576, about one tenth of that of the former. The average population density in the outer-most zone that includes the remaining districts and counties was 296 persons per square kilometre, again about one tenth of that of the second zone.



Besides population density, differences of employment structure leading to varying income levels of local residents further contribute to the variance in economic development among the zones. Retail sales density is a comprehensive criterion able to indicate such economic variations among districts and counties (Figure 1-1). As the three-zone demarcation remains clear, gaps among zones, in particular the latter two, are more apparent. The averages of the former two zones were 264.76 million Yuan and 24.62 million Yuan per square kilometre, respectively, in 1996. The outer-most zone had only 1.26 million Yuan, about 1/12 of that in the second zone or 1/211 of that in the core zone.

Figure 1-1 Densities of Population and Retail Sales in Beijing Municipality 1996



Source: Beijing Statistical Yearbook 1997, pp. 59 and 439-490.

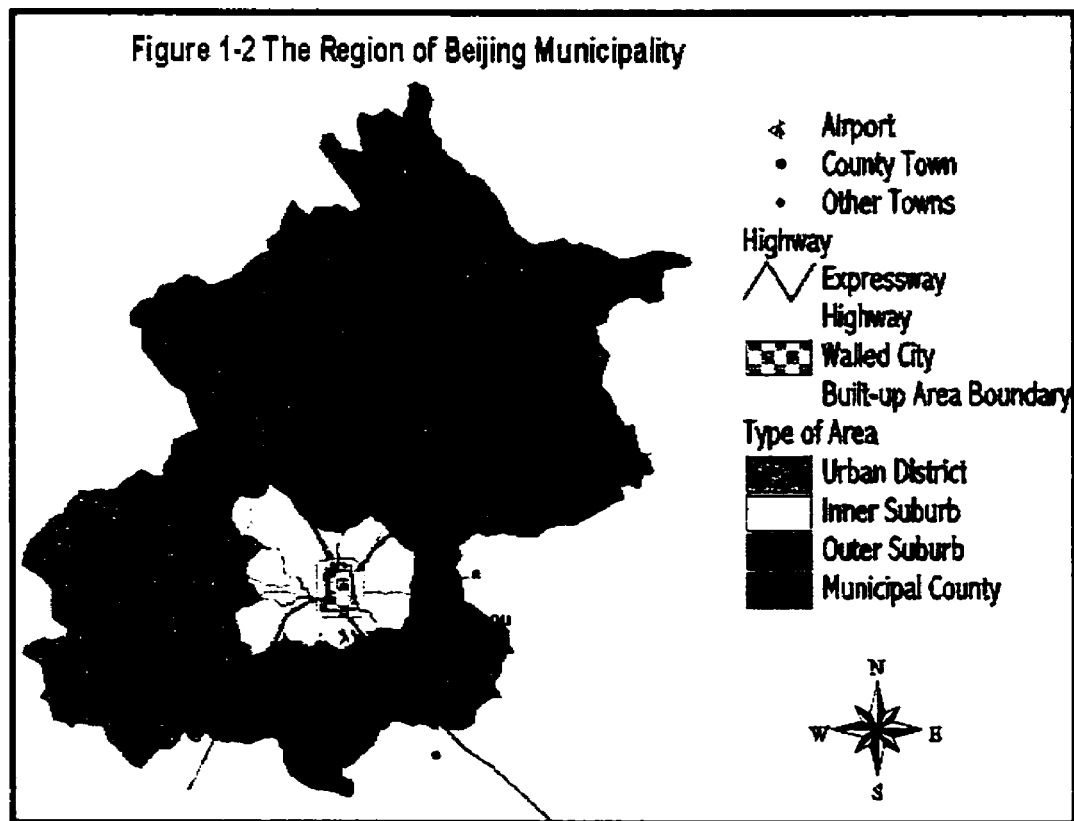
There also exist some differences within the outmost zone. The outer suburban districts, Mentougou and Fangshan, have a higher concentration of modern economic activities. While the former is Beijing's most important coal mining and construction material industrial base, the latter accommodates the Yanshan Petrochemical Complex. The plain counties, including Tongzhou, Shunyi, Changping, and Daxing, are relatively densely populated. Manufacturing has played a significant role in their local economies. In contrast, with regard to functional linkages with the central city, other counties in the north serve mainly as tourist and entertainment sites. A variety of areas recognized within the municipality are summarized in Table 1-2 and shown in Figure 1-2.

Table 1-2 The Areas in the Beijing Municipality 1996

Area	Contents	Area (km <sup>2</sup> )	Population (1000)	Approximate Area in Toronto
1. Old City	Walled city	62.0	1,900 (est.)	Downtown
2. Urban Districts	4 Urban Districts	87.1	2,671	City of Toronto (before 1996)
3. Built-up Area	Existing built-up area	487.7	6,000 (est.)	N/A
4. Aggregated Urban Districts (AUD)	Four <i>Urban Districts</i> and Four <i>Inner Suburban Districts</i>	1,370	7,244	City of Toronto (former Metro Toronto)
5. Administrative Urban Districts	AUDs plus two <i>Outer Suburban Districts</i>	4,568	8,274	N/A
6. Municipality (Metropolitan Area)	Ten urban and suburban districts, and eight counties	16,808	11,840	GTA (Greater Toronto Area)

Note: The populations in the Old City and Built-up Area were estimates in 1990, according Hu, Z., 1993. *Beijing in "Open Door" Policy: Breakthrough, Scope and Challenge*.

Source: *Beijing Statistical Yearbook 1997*. Beijing: Statistical Press of China.



### 1.5 Organization of the Dissertation

The purpose of this research is to better understand the spatial processes of urban development and retail structure in Beijing within a context of rapid economic and social change. The emphasis of the research will be on the interpretation of the spatial structure and the evolution of urban functions, particularly of the retail patterns in Beijing in the era of reform. Within a given theoretical framework, all the interpretations will enhance the understanding of the spatial-temporal processes involved in the changes in Beijing, and help to build a dynamic model of urban structure.

While Chapter 1 has discussed the research problems and geographical

background of the study area, the second chapter reviews existing literature on urban retailing, the Third World city, the socialist city, and the Chinese city. Chapter 3 focuses on research design, including research objectives, hypotheses, methodology, and data sources. A theoretical framework and analytical elements that guide analyses in the later parts of the dissertation are also proposed in the research design.

Chapter 4 presents the design of Beijing as a traditional Chinese capital city and the development of its markets. Chapter 5 deals with the socialist reconstruction of the city and retailing. Chapter 6 examines the spatial processes of urban development during the era of reform, which involve population change, industrial relocation, and emergence of new business centres. A dynamic model of urban structure is put forward to summarize those spatial changes in Beijing. In Chapter 7 analyses are made on retail organization, market influencing factors, spatial retail change, and retail patterns with the recent urban development in the national capital. Finally, Chapter 8 provides a summary of major findings and discussion on related issues.

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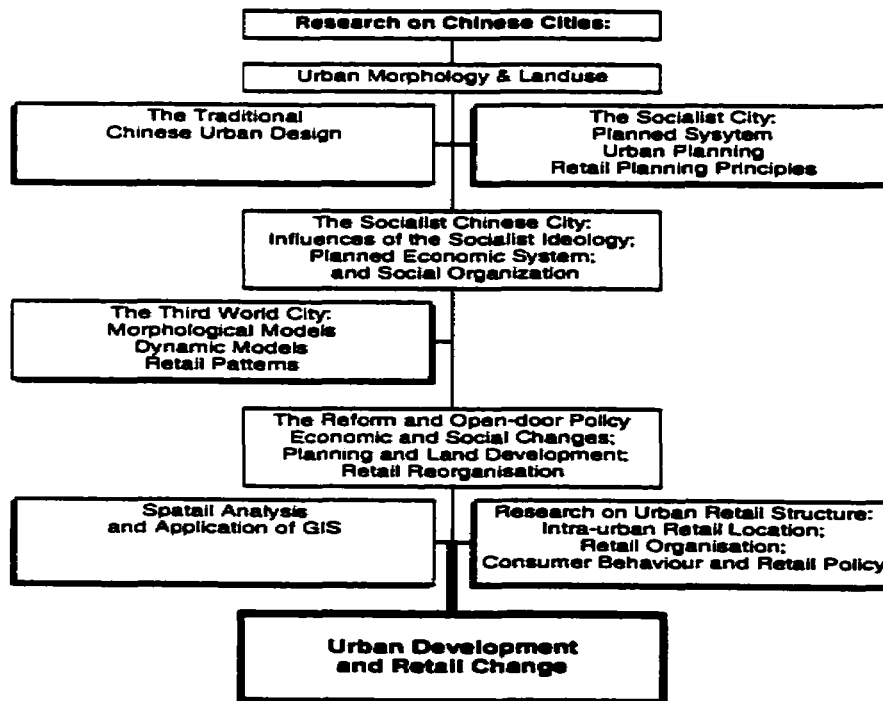
#### Notes:

1. Here the total population includes permanent residents with household registration and registered temporary residents.
2. Today, this classification does not reflect people's occupation. In state-owned farms, most workers have non-agricultural household registration status. Particularly, since economic reforms, many classified as agricultural population have been engaged in nonagricultural activities.
3. The term *urban neighbourhood*, or *jiedao banshichu* in Chinese, refers to an administrative unit under the district. It may indicate the urban neighbourhood office or the territory the office administered. In this study, the term is defined with the latter meaning.
4. Two former counties. Tongxian and Shunyi, both located in the east of the municipality, obtained their district status in 1997. Changping was also changed to an outer suburban district in 1998.
5. Since almost all travellers use public transport facilities, the passenger data could be obtained through investigations on suburban bus routes, long-distance bus routes, and short-distance trains.
6. While 17 variables reflecting the social and economic conditions of each county were chosen, the results of stepwise regressions reveal four important variables: a. percentage of non-agricultural population; b. percentage of non-agricultural workers among total rural workers; c. distance from county town to the central city; and d. the non-agricultural ratio in the *Gross Social Product* of counties.

## Chapter 2 Literature Review

Geographers have traditionally explored theories and developed models of urban spatial structure. Such studies on the North American city have been extensive, as exemplified by the *Internal Structure of the City* (Bourne, 1982). However, similar studies of Third World cities have different focuses and themes because of their less developed economies and social fabric (Lowder, 1986). Beijing is a Third World city. Besides being the capital of a socialist country, it is a city with its roots in Chinese culture and history. For this study on urban development and retail change in Beijing, the literature review aims to provide an overview of previous research on urban retailing, Third World cities, socialist cities, and Chinese cities (Figure 2-1).

Figure 2-1 Outline of the Literature Review



## **2.1 Research on Urban Retail Structure**

Since the 1930s geographical studies have linked retail activity to the analyses of urban functions and morphology. Pioneering research work, both by Proudfoot (1937) in North America and by Christaller and others in Europe, revealed that retailing was a major component of the urban environment and played a central role in urban economic activities. After World War II, modern analysis on retail location paralleled the development of urban geography. With the growth of the quantitative movement, particularly the introduction of Christaller's central place theory in the 1950s, retail activity has been widely examined both theoretically and empirically by geographers in North America and Europe. To date, although the central place model is still representative in the literature, a number of other hypotheses and approaches that deal with intra-urban retail structure have been advanced. These developments can be identified in four interrelated themes: consumer behaviour, retail location, retail organization, and public policies in retailing (Dawson, 1980). The analysis of consumer shopping behaviour was particularly affected by the behavioural conceptual framework, and a variety of models in this field were proposed (Shepherd and Thomas, 1980; Dawson and Kirby, 1980; Potter, 1978). Many earlier examinations on the subject were mainly concerned with normative spatial models that postulated human behaviour in accordance with optimal spatial pattern. However, the more recent interdisciplinary studies emphasized the development of theories that are based on the behavioural approach, and on information derived from the individual scale of investigation (Brown, 1987c).

Studies of retail organization have also been one of the central themes in retail geography. Although there is no clear-cut theoretical and methodological basis to synthesize diverse studies (Davies and Kirby, 1980:156), previous studies on the subject possess some spatial relevance and have strong potential in geographical applications (Brown, 1987b). With regard to the organizational change in retailing, three specific hypotheses may be discerned. An environmental hypothesis contends that retail changes are direct responses to the development of socio-economic conditions (Simmons, 1964). The cyclical theory explains retail evolution with such conceptualizations as the retail accordion, the wheel of retailing and the retail life cycle. In contrast to the above, the conflict theory focuses on the process of conflict between different forms of retailing (Dawson, 1979:349-58). Studies on marketing and business administration are also important to the understanding of the process of changes in the structure of the retail system (Thorpe, 1978; Davies and Kirby, 1980:162-4).

The investigation of the relationship between public policies and retailing constitutes another emphasis. Since governments usually exert their influence on the retail sector, it is necessary for geographers to study public policies that affect retail location, retail price, business structure, firm control and consumer protection (Dawson, 1980:193-235; Jones and Simmons, 1987:365-412). Through investigating the spatial impacts of these policies, geographers have contributed to policy formulation and assessment. In particular, retail location policies and planning, as direct means in guiding the implementation of new commercial developments, have been widely explored (Davies, 1984; Brown, 1989).

Analysis of retail location and intra-urban spatial retail structure has been a traditional and very popular theme in the research of human geography. Therefore, a considerable amount of literature associated with the spatial aspects of retailing has been produced (Kivell and Shaw, 1980:95). Among existing research, several important aspects which have received relatively detailed attention can be identified. One of the emphases involves the analysis of the hierarchical and topological patterns of retail structure. On the basis of his investigation and previous research on business area classification, Berry (1967; 1988) generalized a three-fold typology of centres, ribbons and specialized areas that now has been widely accepted. Adopting the concept of retail hierarchy and urban land-use models, Davies (1972) applied the above typology to central area retail facilities and developed a complex model. This study continues to influence some recent studies (Morrill, 1987; Brown, 1987a). However, further examinations of British cities suggest that the classic typology should take into account the size, functions, location, and other salient properties of intra-urban retailing areas (Potter, 1981; Davies and Bennison, 1977).

A second emphasis of the theme deals with trade area, retail site economics and location strategy. Since the 1960s spatial interaction models such as the Huff model have been widely used to estimate trade areas and shopping centre locations. Recently, spatial diffusion models have also been employed to interpret the evolution of retail outlet distribution (Jones, 1981; Laulajainen, 1987; Graff and Ashton, 1994). Other research places emphasis on the analysis of retail location change. The earliest interpretation of spatial change of individual stores is perhaps Nelson's interceptor ring model (Kivell and Shaw, 1980:98). It documented the tendency of new stores to locate



in suburban centres and road intersections in American cities in the early part of the 20th century. However, most subsequent research focused on the relations between the patterns of retail facilities and retail sales and socio-economic factors. After examining the development processes of American cities, Vance (1962) identified five dynamic factors affecting commercial structure. Simmons (1964) further distinguished between the controlling factors as direct forces and the modifying variables as indirect ones. He also found that the factors in these two categories are interlocked in leading to changes of retail location. In a lately published monograph on the commercial structure of the Greater Toronto Area, Simmons *et al* (1996) continued to focus on the changes of such socio-economic factors as population size, household income, occupation, and trade intensity.

As in other branches of geography, retail geography has also attracted much quantitative research. Simulation and interpretation with mathematical models have involved almost every aspect of retail spatial analysis (Lee and McCracken, 1982). The literature in this area includes studies such as Rogers' (1969) quadrant analysis, Dacey's (1972) central cluster process model, Lee's (1979) nearest-neighbour spatial association measure, and Goodchild's (1984) location-allocation model. Taking advantage of rapidly advancing computer technology, recent research in retail analysis has extended to studies on the application of geographical information systems (GIS). Such studies generally involve spatial analyses in patterns of retail establishments, trade area - shopping centre relationships, and market via retail pattern exploration (Simmons *et al*, 1996).

## **2.2 Urban Spatial Structure of Third World Cities**

Since the late 1960s, a great deal of attention has been paid to the urban spatial structure of Third World cities. As a result, a considerable number of models and hypotheses that attempted to explain the mechanism of internal pattern development and changes were proposed (Lowder, 1986:206-249). According to their nature and emphases, these models can be grouped into two major types: the descriptive and the dynamic models. The descriptive models were greatly influenced by the Chicago school and later by other approaches on Western cities. Most of them were deduced from a sample city at a specific time, and they generally focus on the patterns of land use, population distribution, and social group areas within the city. Several typical models on urban morphology have been identified that deal specifically with the functional elements. In these models, it is assumed that urban commercial and residential land-uses are differentiated by their locations to the CBD, and the ethnic groups and their social status. Examples are the models for the cities in Latin America (Griffin and Ford, 1980; Crowley, 1995; Ford, 1996), Africa (the United Nations, 1973), Southeast Asia (McGee, 1967), and South Asia (Kosambi and Brush, 1988). Since it is easy to compare among cities, population density gradient has been widely studied in association with social class distribution and land use patterns. Meanwhile, some ecological approaches were also tested in the cities of different sizes among the major developing continents.

The dynamic models provide insight into the processes that are driving 'forces' behind the spatial aspect of urban growth. By relating the process to the form of urban development, spatial, occupational and temporal factors have been usually employed

in such approaches (Sargent, 1972). In particular, urban land speculation and historical creation of transportation network were given greater attention as compared to other factors. Another example, Turner's intra-urban mobility model, revealed the dynamic process of different social groups migrating, along with their income changes, within an urban region. In spite of criticism, the validity of this model has been verified in East and West Africa (Kliest and Scheffer, 1981) and other colonial cities in Latin America (Schuurman, 1986). However, the resulting models differ in their focus at three levels: the user, the entrepreneur and the state (Lowder, 1986:209).

In contrast with the studies of retail suburbanization, retail decline in downtown areas, and retail restructuring that dominate in Anglo-American cities (Robertson, 1983; Baerwald, 1989; Lord and Guy, 1991), retail studies of Third World cities focus on their supply systems and their formal and informal retail sectors in urban areas over the last several decades (McGee and Yeung, 1977). The supply system and its spatial pattern are generally related to its colonial exploration, dependent urbanization and indigenous economies (Lowder, 1986:186-205; Potter and Dann, 1990). Potter (1990) examined the retail change during the process in economic development in an island state in the Caribbean. He used the term "*Shared Space*" to describe the coexistence of the traditional and modern components of retailing in the state, and further revealed its core-periphery structure as its historical genesis and present social disparities. The differences of the two-sector retail forms are also described, using an indicator of shop windows in Tunis (Paddison, 1984).

### **2.3 Spatial Structure of the Socialist City**

The socialist city has fundamental contradictions with its capitalist counterpart. F.E. Ian Hamilton (1979:195-261), writing on East European cities before the collapse of their socialist system, noted three major processes through which the characteristics of the socialist city were developed. (1) The ideological-political process pursued the quest for equity or social justice, which guided the socialist urban development on two levels: inter-city and intra-city. The ideological goal was to provide equal opportunities and living conditions to all people, through socialist control and allocation of social commodities and consumer goods. All people should be equally accessible to all goods, services and facilities provided by the state. (2) The administrative and planning process was the way through which the above ideology was put into practice in the organization, development and management of urban space. The central government determined the administrative status and the degree of autonomy of each city. The central decisions or policy allocation of resources directly affected the growth, stagnation, or alternation of city functions, infrastructure, and population change. Through various vertical channels, the ministries of the central government supervised or exerted influence on the construction of local cities. (3) The economic process was essential to the formation of urban space (White, 1981). Underlying the economic process is the ownership relation governing production, services, and infrastructure. Land or property ownership shaped urban form, because various state owned organizations and enterprises preferred to occupy significant amounts of land that were free under socialism. State ownership of the means of production and services led to the state controls of the allocation of land, labour and

infrastructure. Further, the state controlled allocations of capital, labour force and commodity distribution among economic sectors. As a result, socialist investment and employment policies contributed to the evident characteristics of East European cities. The “production” sectors, particularly the material production sectors which played a key role in the socialist industrialization, were dominant over “non-production” functions. Meanwhile, the growth in the retailing of consumer goods was restricted. This investment pattern and government policy led to the socialist urban structure that contrasts with that of the capitalist city.

The internal structure of the socialist city represents the spatial consequences of the foregoing processes. The first detailed examination of the socialist city was done by Hamilton (1979:227). He constructed a model of such a city and identified eight concentric zones. (1) The historic medieval or renaissance core; (2) Inner commercial, housing, and industrial areas from the capitalist period; (3) A zone of socialist transition or renewal; (4) Socialist housing of the 1950s; (5) Integrated socialist neighbourhoods and residential districts of the 1960s and 1970s; (6) Open or planted “isolation green belt”; (7) Industrial or related zones; and (8) Open countryside, including tourist complexes.

The reality of East European cities showed that this concentric zone structure was clearly evident in the urban landscapes (Werwicki, 1979:335-348; Carter, 1979:453). The historic cores had possibly been preserved as symbols of traditional culture. The inner area was an amalgamation of many types of buildings and uses. Outward from the pre-socialist urban tracts, new construction was partially and progressively replacing the inherited features. Compared to hurriedly built blocks of

apartments at an earlier stage, the succeeding residential neighbourhoods were well organized where the necessary services and convenience shops are provided. In order to avoid excessive commuting for working and shopping, regional and sub-regional centres were planned to create employment opportunities and to shift shopping trips from the inner area. Industrial areas were planned in peripheral locations and were carefully segregated from residential areas.

Within the socialist city, the patterns of services as well as retailing had also been characterized by the effect of the foregoing processes. Heineberg's (1979:305) case study on service centres in Berlin demonstrated that the different socio-economic systems of the two parts of Germany had produced contrasting structure and functions in major service centres in East Berlin and West Berlin. He emphasized several principles in the post-war redevelopment of service centres in East Berlin. With strict observance of Soviet city-planning guidelines, the key objective of these principles was to show the characteristics of the new social system. Particularly, the character of retail establishments was largely regulated by the *Principles of Planning and Organization*, which set out rules concerning the nature of the agglomeration sites, the size structure, the degree of specialization, and the ranking of retail outlets. The principle of *territorial concentration* was applied so that several specialized but complementary sales outlets with limited ranges of goods agglomerated to form shopping complexes. While this precept promoted the groups of shops selling a diversified range of goods by forming the so-called *demand complex*, the principle of *spatial concentration* of retail networks raised the average size of retail units but reduced their number. Their combination encouraged the development of the first large

new department store. The principle of *concentric construction* governed the locational pattern of retail outlets for products with different demand frequency. According to the types of goods that were demanded daily, periodically, and infrequently, the retail outlets were ranked and allocated in different centres. Finally, the principle of developing a hierarchical system of 'centres of public life' introduced four orders of service centres: the city centre, the city-district, the residential-district, and the residential-complex. Each of those had different sizes, functions, and locations, but was organized in the entire network of service centres. Recent studies of the economic transformation process on the structure and location of retailing in the former East Germany (Kulke, 1997) and Poland (Riley, 1997) augment our understanding of retail change in post-socialist societies.

## **2.4 Spatial Structure of Chinese Cities**

### **2.4.1 Urban Morphology and Internal Structure**

The study on urban morphology usually focuses on the shape of urban expansion and the evolution of urban functional areas because of their significance in urban planning. Partly, because of the lack of land use information, some geographers outside China prefer to do this kind of analysis. Lo (1980a) used the Boyce-Clark shape index to identify the changes in the shape of 23 Chinese cities. Research has also been taken on the historical evolution of urban morphology (Pannell, 1980). Since the early 1980s, remote sensing has been frequently employed in research on land use patterns (Pannell and Welch, 1980; Lo, 1980b; 1986). Meanwhile, Chinese scholars

have related the changes of urban morphology in several Chinese cities to their social, economic, cultural and natural aspects (Yan, 1995).

Bourne (1982) suggested three aspects of the internal structure of the city: urban form, urban interaction, and spatial structure. While there is no clear difference between urban form and spatial structure, they have been more frequently examined in Chinese urban studies. An empirical study on urban interaction was undertaken based on an investigation of passenger flows between the central city of Beijing and its adjacent surrounding areas (Sun, 1992). Existing research on urban form and spatial structure can be grouped into four categories: the spatial structure of metropolitan regions, urban land use, functional area pattern, and urban social structure. The first topic is central to the understanding of the macro-structure of the Chinese urban region. Several conceptual models have been proposed on the basis of investigations of land use patterns (Lo, 1980b), rural-urban relationships (Sit, 1985), and urban population distribution types (Ma and Cui, 1987). This topic was also studied in the analyses of satellite town development (Fung, 1981a; Yeh and Yuan 1987) and suburban agricultural land use (Fung, 1980; Bjorklund, 1987; Kikuchi, etc., 1997).

Little research on internal urban land use has been conducted because detailed urban land use data were unavailable. However, Fung (1980, 1981b, 1986) has contributed to a better understanding of the impact of urban sprawl on land-use patterns in Chinese cities. After critically examining the factors resulting in uncontrolled urban expansion and wasteful use of urban and suburban land, he identified that a large number of Chinese cities underwent rapid spatial expansion due to intensive industrial development. He criticized the fact that many cities as well as



single industrial plants acquired much more land than they actually needed. He also argued that a very high standard for green land and open space in the Soviet model was indiscriminately adopted in urban plans. He further emphasized the need for comprehensive land use regulations and their effective implementation. Using housing census data of 1985, Gan (1990) analyzed the urban land use pattern in the built-up area of Beijing. For the purpose of levying land-use fees and taxes, the study of urban land use within China began in the mid-1980s. It reached a high point in the early 1990s, mainly because of the state's land-use and housing reforms that have led to a newly "overheating" real estate market in the country.

The study of some urban functional areas has emerged recently, not only because of the availability of data from urban land gradation, but also because of the needs generated by rapid urban development. To meet the need of international investment and modernization, urban industrial (Wu, 1987; Yan and Tang, 1990) and residential (Lin, 1991; Chen, 1993) functions have been studied. While earlier literature has primarily focused on the pattern of commercial-service centres in Shanghai (Ning, 1984) and Beijing (Xu, 1984), later examinations revealed the historical evolution of market places in Beijing (Gao, 1987) and predicted future commercial networks (Yang, 1990).

Examination of the urban social areas, or urban ecological analysis, has been made on a few large Chinese cities, including Beijing (Yang, 1992). Unlike many North American cities where multiple ethnic groups live, most Chinese cities have very few racial differences. However, the study shows that other factors are at work. Population densities, organizational elements, residential areas of intellectuals, and

large industrial enterprises have obvious effects in shaping the social spatial structure of Chinese cities (Yan, 1995). In addition, empirical research on urban spatial cognition was conducted in order to investigate residents' environmental perception and residential preferences (Lee and Schmidt, 1986).

#### **2.4.2 Influences of Socialist Ideology and Urban Economic Reform**

China is a socialist country where socialist ideology played a crucial role in many aspects of the society. This ideology had significantly affected both the course of urban development and the internal structure of cities in the country (Lo, 1980b; 1987; Demko and Regulska, 1987; Xie and Costa, 1993). The Chinese government directed urban development mainly through population control and resource allocation (Lo, 1987; Yeh and Wu, 1995). A household registration system classifies the population into agricultural and non-agricultural in conjunction with food rationing which was used to prevent unauthorized migration both from the countryside to the city (Kirkby, 1985) and within cities. This policy was effective in controlling population growth in all large cities (Sit, 1985; Yeung, 1986).

With its power of resource allocation, the state controlled the location of investment and residence through employment by work-units. As special social areas, work-units exist in Chinese cities and create a cohesive group which is different in nature from that in developed countries. Most work-units are structured so that the workplace, residence, and leisure places are all located within visible and invisible walls (Bjorklund, 1986; Chan, 1994). As they are responsible for most facets of life, especially housing for employees, work units actively participate in residential construction (Lo, 1987; Yeh and Wu, 1995). Therefore, under the system of free land

acquisition, work units usually desire to occupy a much greater amount of land than they actually need (Fung, 1981b; 1986). Consequently, the work unit system has directly caused a fragmented urban land-use pattern and urban sprawl. The pattern and intensity of land-use did not reflect their rent-paying abilities (Fung, 1986; World Bank, 1993).

Socialist planning principles have also changed the urban landscape of Chinese cities. The idea of a highly standardized and uniform social organization underscores equal access to facilities and services. The centre of the city was usually designated for use by government agencies (Lo, 1987). The Soviet planning model with a central public square for political activity was adopted by many Chinese cities. As a result, the overall form and functional differentiation of the city were greatly generalized (Gaubatz, 1995a).

The introduction of a market-driven economic system and the absorption of foreign investment since the late 1970s have significantly influenced many activities in the Chinese society, including urban development (Hamer, 1990; Pannell, 1990; 1995; Yeh and Wu, 1995). With the introduction of land markets, housing markets, and reforms in ownership and management, the previous mechanisms that controlled urban development in China have been weakened. The new and growing force influencing the evolving internal structure of Chinese cities is shifting to market competition, as neo-classical economists have described (Yeh and Wu, 1995; Wu, 1995). The evolution of Chinese cities is becoming more similar in form and functions to other Third World cities (Gaubatz, 1995a; 1995b; Leaf, 1995).

As urban development and land-use restructuring are taking place in Chinese cities, a new internal structure is emerging (Gaubatz, 1995a). Despite criticism that land use in some cities is becoming more chaotic and mixed (Yeh and Wu, 1995) due to insufficient market power and an out-dated administrative system, the main change since the late 1970s is the transition from a relatively undifferentiated functional landscape to one of increasing specialization. In some metropolises, more specialized urban functional patterns are increasingly visible. For example, the central business district (CBD) that had vanished in Chinese cities since the communist revolution has begun to reappear in Beijing (Hu, 1993a; Gaubatz, 1995a) and Shanghai (Yan and Tang, 1990; Gaubatz, 1995b).

## **2.5 Remaining Problems**

Dawson (1980) highlighted the unsuitability of the traditional concepts of retail geography to deal with the patterns and processes of present-day retailing. He pointed out that the lack of new theoretical concepts and alternative models has resulted in problems in contemporary studies. Some research still takes the experimental design for retailing of the past, and new types of retail facilities are forced to fit into the traditional hierarchy in planning. Potter (1990) also found it surprising that so little research has sought to explore the commercial structure in Third World cities. But above all, examination of retail structure was seldom associated with urban development.

This review also indicates that while the number of studies on Chinese cities is increasing, many problems still remain. First, the study of Chinese urban structure lags

far behind those of similar work done on North American and European cities. Up to the present, it has not established an acceptable theoretical framework and model for Chinese urban structure, comparable to those developed on Southeast Asian cities and South American cities (Ma and Noble, 1986). Second, little in depth work has led to a lack of significant theoretical progress. Some descriptive case studies have examined the patterns that emerge, but have ignored the mechanisms which cause those patterns. Therefore, it is absolutely necessary to learn more from other fields such as economics and sociology that could provide fundamental explanations to spatial patterns and processes. Third, the research methodology appears to be immature. New methods and techniques that will be helpful in revealing what conventional methods are not able to do are strongly recommended for the study of Chinese urban spatial structure.

It is clear that the study of Chinese urban spatial structure still faces many difficulties. Given the complex political decision-making system and the existing quasi-market economy, the understanding of China's economic and social system is limited. It is not surprising that inadequate research has led to the absence of sound theories and models that deal with complex social phenomena. The obstacle may also be due to the serious lack of urban data resources. For example, census tract and industrial data that are available in the West do not exist in China. Many relevant industrial data for local areas are collected centrally in aggregated form, and generally are not released to the public.

China is undergoing a rapid and profound change, and as a result a large number of new questions will continue to emerge. Any valid results on the study of contemporary urban issues of a country with the largest urban population in the world

will definitely have a significant influence both in theory in urban geography and urban planning. For example, explanations for the mechanisms and processes by which reforms have been influencing Chinese urban spatial restructuring will be of particular value for urban planning. This understanding will help to establish new planning principles applicable to Chinese cities when the out-of-date ideology and planning principles are abandoned. This kind of research may also influence policy-making (spatial and aspatial) in anticipation of urban growth in a liberalizing economy, thereby reducing urban problems that have occurred in many other Third World cities. Therefore, this literature review suggests that it is imperative to study the internal structure of China's changing metropolises in the post-reform era.

## **Chapter 3 Research Design: Objectives, Hypotheses, and the Theoretical Framework**

### **3.1 Research Objectives**

The general objective of this research is to develop a theoretical framework to better understand the spatial processes of urban development and retail change. This understanding will allow us to comment on existing theoretical models relating to Third World urban development, within a context of rapid economic and social changes. The emphasis of this research will be on the interpretation of the spatial structure and the evolution of urban functions, particularly that of the retail patterns in Beijing in the era of reform.

The first objective of the dissertation is to establish a theoretical framework for analyzing the evolution of urban spatial structure in Beijing. By incorporating socio-economic factors into the theoretical framework, their relationships and influences will be examined throughout different development stages. Although distinctive socio-economic settings have had different impacts on urban development in history, the mechanism that led to the development of certain urban patterns will be explained with the same theoretical framework.

The second objective is to identify the processes affecting changes in urban structure and retail patterns associated with post-reform urban development in China. Particular attention will be given to population change, land use conversion, recent

urban sprawl, and functional shifts in the city. While assuming functional interaction exists among commercial, residential and industrial land uses, the spatial processes will be depicted with respect to the concept of spatial competition in the process of urban development.

While the socio-economic transformation in Beijing has resulted in retail changes, the third objective of this research is to analyze the spatial changes in the market structure of Beijing. This examination measures the overall impacts of major socio-economic factors/forces of urban development.

The fourth objective of the dissertation is to interpret the retail structure and its evolution with regard to the concept of retail centre. By enquiring into the changes of the distribution and hierarchy of major retail outlets in the city, this study examines whether the retail pattern in Beijing conforms to certain theoretical models (e.g. central place theory). While exploring the spatial distribution of different types of retail establishments, in terms of spatial clustering, avoidance, or random distribution, it is possible to discern the adoption of competition strategies by retail firms in the period of economic transition.

### **3.2 Hypotheses**

During the transformation from a centrally planned economy to a market-driven system in the era of reform, urban economic and social elements have been modified, leading to fundamental changes in the urban spatial structure, particularly the retail structure. In order to achieve the specific research objectives, the following four hypotheses are proposed:



- ***Urban Development Stages and Restructuring Processes Hypothesis:*** Since its establishment Beijing has experienced three urban development stages, as a result of its transformation from an imperial capital, through a socialist political centre and to a modern metropolis. Each stage, having a dominant social value, as well as significantly different socio-economic characteristics, generates a specific spatial pattern in the city.
- ***Urban Spatial Processes Hypothesis.*** The inter-linked economic and social factors arising from China's economic reform are promoting three essential spatial processes in the city: *agglomeration* of new urban functions, *changes* in land use, and *diffusion* of existing urban functions.
- ***Market Influencing Factors Hypothesis:*** The spatial pattern and size of market are affected by a number of socio-economic factors that are components of the urban economic system. Changes in the level and distribution of these factors will influence market structure, and the pattern of retail sales and the distribution of retail establishments.
- ***Retail Pattern Evolution Hypothesis:*** At each stage of urban development, Beijing's retail pattern conforms to a specific principle and spatial model. In the era of reforms, the evolution of urban retail hierarchy tends to become more sophisticated and begins to support the diffusion processes. Given the specific retail system and urban setting (e.g. population density and transportation facilities), Beijing's current retail structure, both the overall pattern and its operating format, shows differences in location of retail activities when compared with its Third World counterparts.

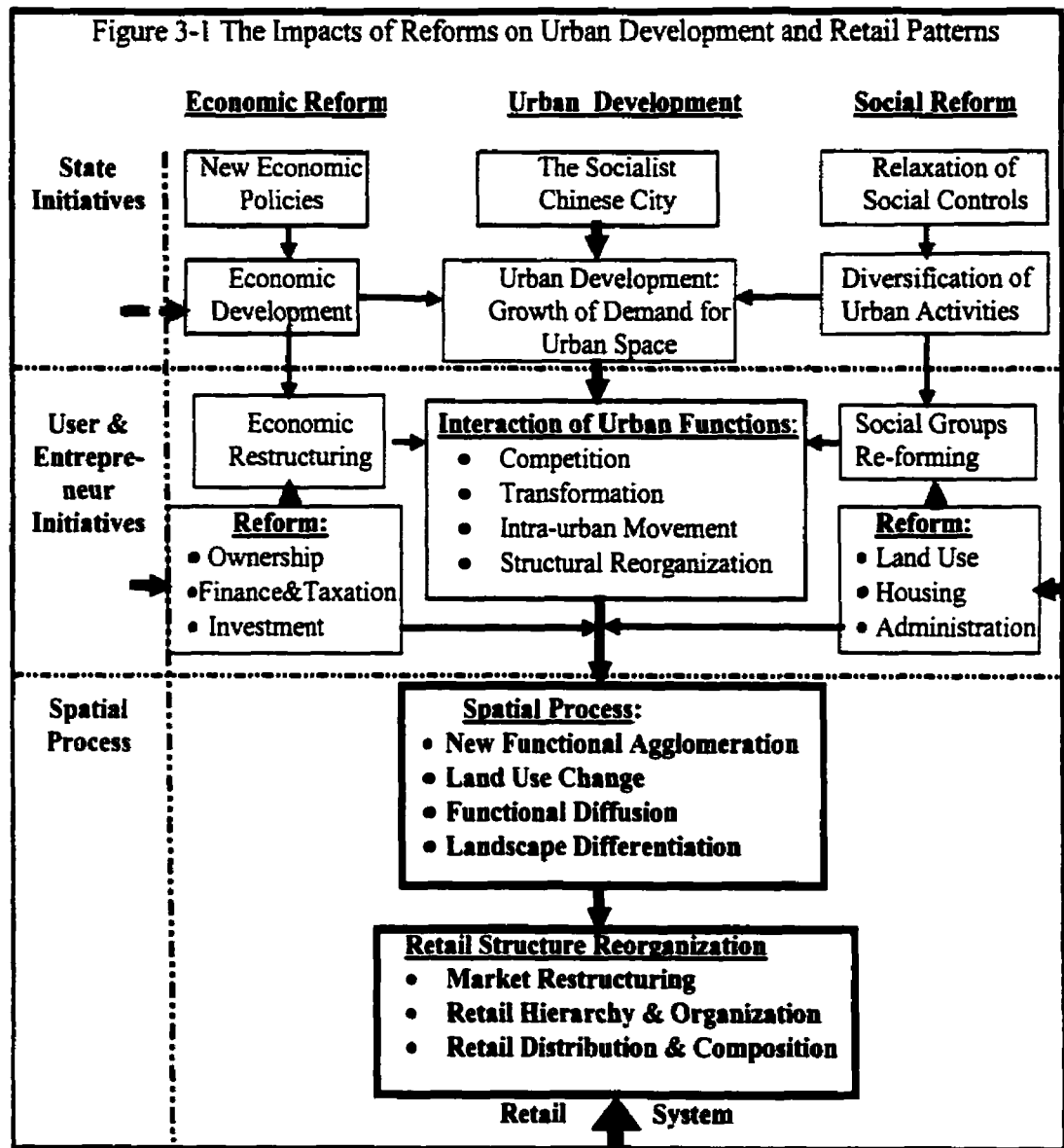
### **3.3 Urban Development and Retail Structure: The Theoretical Framework**

It has been widely recognized in urban studies that the city can be viewed as a system. The evolution of the city could be thought of as a response of the present pattern to factors outside the urban system itself (Cadwallader, 1996:21). With regard to either the urban reproduction process (Castells, 1977:126-127) or the city-forming process (Bourne, 1982:28-45), the dynamic urban system is composed of four elements: production, consumption, exchange or distribution, and administration or control. These elements are interlocked with and interdependent on one another in the formation of an entity, the city, within which subsystems (such as transport networks or commercial complexes) can be defined by the extent to which their interrelationships or the strength of interdependence exert influences upon various urban functions. The subsystem in the city may be defined in either spatial or aspatial terms, or both. However, a spatial urban pattern may represent a projection of aspatial elements in space, and urban space can be structured in the processes of each type and at each period of social organization (Castells, 1977:115). Thus, in order to analyze the spatial pattern of an urban function, it is necessary to examine the political, economic and social subsystems that are the most fundamental components in shaping the structure of the city.

Changes in the political, economic and social subsystems of Third World cities can be defined as a result of initiatives at three levels: the state, the entrepreneur and the user (Lowder, 1986:206-249). Since recent literature ascribes the major changes in urban China to the impact of economic and social reforms (Perkins, 1990), there is a need to examine the roles of the initiatives at those three levels. Reviewing the

changes that have occurred in China over the last two decades, it is very clear that most of the reform and open-door policies were promulgated by the state government and implemented mainly via a vertical route from top to bottom. Given China's unique social structure, the state's initiatives were always predominant in this centrally planned nation. Comparatively, the user's and entrepreneur's initiatives usually were regulated so as to be agreeable with those of the state. The state's initiatives as the original forces, together with those of entrepreneurs and users, jointly created an environment, in which competition, movement and transformation among urban functions have resulted in new urban spatial processes, leading to a reorganization of the retail system.

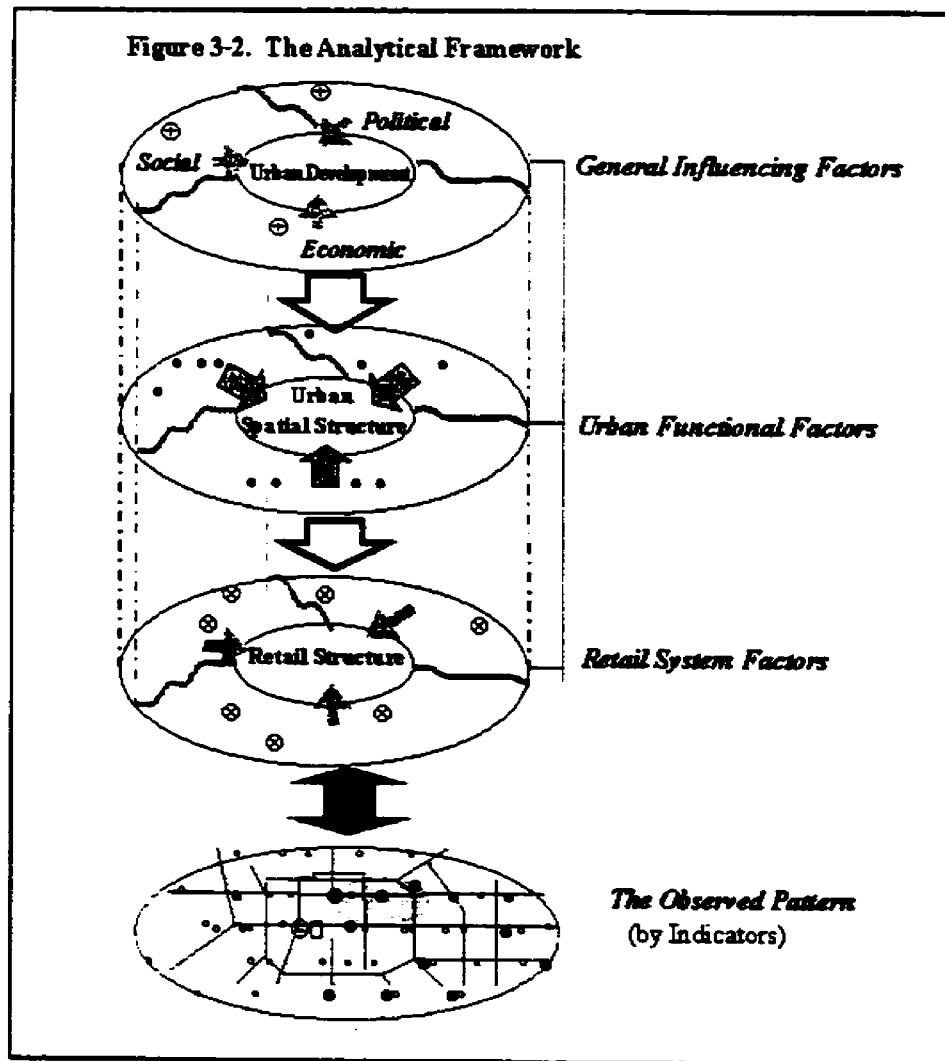
The basic theoretical framework of this research, as shown in Figure 3-1, is that interactions of several major subsystems that underpin urban development bring about spatial processes in the city, which further lead to changes in retail structure. Retail structure not only represents a major component of the overall urban spatial pattern, but in turn, it also influences changes in the latter. This two-way relationship suggests that explanations for retail change may underlie the socio-economic factors and that the emphasis should be given to the systems containing those factors. As noted above, the impacts of the socio-economic factors are effective at different levels and on different aspects. Therefore, the examination of the pattern of retail change will be undertaken, using a step-by-step approach, on the interactions and spatial processes brought about by those factors (Figure 3-1).



### 3.4 Socio-economic Factors and Spatial Indicators: The Analytical Elements

Given an understanding of the causal relationship between urban development and the factors outside the urban system, the observed urban structure is actually the overlaid influences generated by those factors. Similarly, influencing factors arising from urban development also have impacts on the retail system and result in the development of retail patterns. However, those influencing factors exist neither within

the same system nor at the same level. Factors outside the urban system involve three major aspects: political, economic, and social. Economic activities, political and constitutional structures, and social organizations generate a society that provides a specific environment for urban development. Meanwhile, as an important urban function, retailing is determined by other functions of the urban system. When measured by the nature and extent of their influence, these factors can be divided into three categories (Figure 3-2):



(1) ***General Influencing (or External) Factors***: These factors include economic, social, and political aspects that are not composite elements of the urban system, but are the forces shaping urban development. They would directly lead to modification or even transformation of the urban system, though their influences on retail change are indirect. For example, economic reforms, which introduce market mechanism into economic activities, change urban land-use pattern and improve household incomes. This improvement consequently increases market demand and leads to growth in retail sales and retail facilities.

(2) ***Urban Functional (or Internal) Factors***: The internal factors refer to components of the urban system performing various urban functions. As a service centre, the city executes functions of trade, retail, transportation and others. The city also performs functions as a manufacturing centre and a place for inhabitation. These functions may promote or conflict with each other. With respect to revealing the change in urban structure, some functions are more useful than others. Housing and transport networks of the city have often been examined in this regard.

Retailing is one of the most comprehensive indicators of urban development because it is related to various activities occurring in urban space and its change can reflect other changes in the city. In this research, it will be examined as an aspect of urban development that occurs in the spatial processes of a variety of urban functions. Residential housing development reflects population changes which determine both the size and distribution of the urban market. Change in the transport network affects not only linkages among different functional areas, but also the accessibility of retail facilities. Since Beijing is the second largest manufacturing centre in China,

manufacturing will also be included in the analysis, as the change of this function is closely related to growth in the commercial sector. Differential changes of these factors among districts and communities provide distinctive opportunities for retail activities to penetrate in the commercializing urban area. Within this analytical framework, an examination of these internal factors will not only assist interpretation of the changing urban patterns, but also help in better understanding the evolving retail structure.

(3) ***Retail System Factors***: Maintaining routine retail activity requires various supporting elements that make up the retail system. For example, enterprise organization, means of distribution, marketing strategies, transportation and other technologies jointly support and strengthen operations of the urban retail function. Changes in these policy-oriented factors are also responsible for the transformation of retail landscape.

A *Spatial Indicator* refers to a pointer or an index that can be used to monitor changes in urban pattern, retail structure, and other spatial features of the urban system. It is of great values in using GIS tools to perform spatial analysis. This study makes use of four types of spatial indicators.

(1) ***Functional Areal Indicator***: Many urban phenomena can be interpreted in functional terms but not in administrative terms. Residential areas, business districts, speciality retail areas are all such examples.

(2) ***Administrative Areal Indicator***: This refers to statistical indices for basic administrative areas. Three basic levels of administrative areal indicator are available: municipality, district, and urban neighbourhood. However, this indicator

for other intermediate levels can be generated by combining the areas of the latter two basic levels. Variables of this indicator include population, employment, retail sales, number of stores, and others.

(3) ***Point Indicator***: When viewed from the whole city, stores can be regarded as points. Point indicators of stores will show locations of major retail establishments for analysis of their distribution. Other business facilities, such as commercial complexes and high-order hotels that reflect new development in the city can also be presented as point indicators.

(4) ***Line indicator***: This includes the transport network and retail strips.

### **3.5 Methodology**

The introduction of quantitative methods and the behavioural approach into geographical research has led to applications of a variety of conceptual and mathematical models to urban geography and retail research in North American. In contrast, most existing studies on Chinese cities adopted qualitative methods. Although some statistical indices were occasionally employed in the literature, the majority of the research involved description of factors, evaluation of impacts, and explanation of distributions. Although the qualitative approach is necessary and useful in social sciences, the use of quantitative methods may provide accurate results and in-depth research findings in the disciplines.

In accordance with the research objectives and the nature of the problems, four major methods will be employed. Spatial-temporal analysis will be used to examine the evolving urban patterns and retail structure, as well as spatial change in the urban



market. A causal approach, with application of multivariate regressions, will identify the factors that lead to market growth and spatial variation. The nearest neighbour statistic, a measure of the distribution of point patterns, will be used to detect the spatial relationship of different types of retail firms. This research will employ GIS for analyses of the spatial-temporal changes and point patterns. While the focus of this research is on the dynamic urban system of Beijing, GIS will help in developing spatial distribution models and investigating spatial-temporal change in retail and other urban functions, within a digital environment.

### **3.5.1 GIS-based Exploratory Spatial-Temporal Analysis**

Urban development and retail change occur in both time and space. Changes in location and pattern of urban functional elements, including retail complexes, reflect the spatial process of the urban structure. All the four types of spatial indicators, as discussed above, will be examined to depict those changes. The functional areal indicators include the patterns of urban expansion, residential areas, major industrial zones, and the old-city preservation area. Linear patterns contain the intra-city transport network, railroads, and rivers. Point patterns include locations of major retail stores, high-order hotels, large corporate offices and business complexes, other important commercial buildings, and major industrial factories. In addition, the administrative areal indicator, specifically the urban neighbourhoods, can be used to present population distribution. A GIS-based exploratory spatial-temporal analysis will be employed to examine the spatial process of urban development and retail changes, through the interpretation of distributions of those indicators. This examination will also analyse the relationships of those indicators in three aspects. First, it stresses the

interpretation of the spatial distributions of those indicators over time. Through comparison of the distribution, it will explicate the processes of land-use change, functional diffusion, and the formation of new functional areas in Beijing. Second, it will investigate the spatial results caused by other major changes. For example, using the buffer function of GIS, this exploration can detect whether new retail stores have been attracted to locate at major road intersections or not, or if the interceptor ring effect applies to store allocation after circle roads were built. Using GIS as a tool in spatial measurement of distributions, an interpretation of retail patterns can be more closely related to other urban elements in terms of such measures as distance and density. In brief, within a GIS environment, the application of the exploratory spatial-temporal analysis to the study of urban spatial transformation and retail patterns will provide visualized trends and relationships of urban development and retail change during the 1980s and 1990s in Beijing.

### **3.5.2 Shift-Share Analysis**

Unlike other indicators, the administrative areal indicator can be measured both in spatial and structural terms. The shift-share method is a technique for spatial-temporal analysis of such an indicator. It is designed to measure the change in an area's performance relative to the entire study region over a given period of time. It can be viewed as a method of disaggregating spatial changes in a sector in order to identify the components of that change. This model was originally used in regional economics as a tool to study the components of regional growth. However, it is also applicable to urban districts, the administrative areas in a metropolitan area. In this study, the shift-share model will be applied to measure the structural and areal shifts in

retail employment from 1985 to 1996 at the district level. Such an application will identify the growth differentials and changing trends in the retail sector of each district within the Beijing metropolitan region.

### **3.5.3 Multivariate Market Analysis**

The most important determinant of retailing is the market which is defined as a set of consumers (Jones and Simmons, 1987:416). While it is assumed that change in consumer characteristics will influence market size and structure which in turn simultaneously affect retail patterns, this research investigates the relationship between market size and a set of other variables that describe consumer attributes. The assumed market influencing factors will include variables that reflect some attributes of population, employment, investment and other service facilities. The causal relationship between these variables and the market size may provide explanations for retail change in the urban setting. In order to identify this relationship, a multivariate stepwise regression model will be adopted. Since this technique is capable of discerning the significance of the contribution of variables to change in the independent variable, it will help to select the most important variables from those assumed.

### **3.5.4 Point Pattern Analysis.**

There are several corporate location strategies, including those of monopoly, active, and unequal competition (Cohen and Lewis, 1967; Jones and Simmons, 1987:211-15). A monopoly competition strategy consists of the selection of a location away from competing firms in order to have a *spatial monopoly* over a geographic area. In contrast, an active competition strategy involves the conscious decision by a

store to locate at sites close to its competitors in order to prevent the competitors from gaining an advantage. The store can then distinguish itself from its competitors by offering different products and services, and by using the price mechanism. An unequal competition strategy exists when there is considerable variation in the strength of competitors. The weaker firms attempt to avoid competing at the same locales with the more dominant ones.

*The Nearest Neighbour Statistic R*, developed by ecologists in the 1950s, has been used in a number of previous studies to analyze spatial point patterns (Yeates, 1974). In particular, considerable attention was given by geographers to the examination of intra-urban patterns of retail and service facilities (Getis, 1964; Yeates, 1974). The *R* statistic is computed by dividing the actual mean distance to the nearest neighbour point ( $\bar{D}_{obs}$ ) by the expected mean distance for a random point pattern ( $D_e$ ). Values for the statistic *R* can vary from 0 (absolute clustering) to 2.149 (maximum dispersal), with 1.0 indicating a random pattern. Application of the nearest neighbour statistic to the distributions of each type of retail stores in the same area will demonstrate their location tendency in site selection.

Retail stores with an active competition strategy tend to agglomerate and thus form retail centres. Due to the continuum of store locations along streets, *retail centre* was often described as an equivocal term in the existing literature. Since a retail centre is recognized as a group of stores around one or more major department stores, it can be defined on the basis of major department store locations. With this understanding, visualization of the locations and size of the major department stores can identify the hierarchy and distribution of retail centres in Beijing.

### **3.6 Data Resources**

#### **3.6.1 Data on Urban Development**

Urban development involves changes in urban functions, urban residents and the built-up space. Therefore, data for the analysis of urban development mainly include characteristics of the population, economy, land-use and planning issues. (1) *Population:* Population data available for use in this research include two types: statistics and census. The statistical yearbooks after 1981 release annually the numbers of both permanent and temporary populations at the district level. There are two sets of census data available in the period of this study: the 1982 census and the 1990 census. Since the census data contain more detailed information than any annual population statistics, it is possible to analyze the spatial distributions of different types of population at the level of the urban neighbourhood. In addition, a 1% population sample census in 1995 provides data of labour force in various industries and occupations at the district level. An enumeration of the temporary residents in 1997 has augmented the data in statistics and previous surveys. (2) *Economic indices:* There are a series of indices showing the structure and distribution of urban economic activities in the statistical yearbooks. These data include output of industries, household incomes and consumption, employment, investment, and others. It is unfortunate that most of these indices are released to the public at the municipal level. Nevertheless, the industrial censuses in 1986 and 1996, together with the statistics of the 1980s, have recorded the numbers of industrial firms, numbers of employees and values of output of each district. This information makes it possible to analyse the spatial trend of industrial change. (3) *Housing development and land-use change.*

Beijing City had a housing census in 1985, which provides data on living and housing conditions of urban neighbourhoods in the built-up area. *Beijing Urban Construction Material (vol.5): Housing*, published in 1992, records the major construction of industrial, residential and commercial housing between 1950 and 1990. Most recent construction has been recorded in *The Beijing Real Estate Investment Guide* (1993) and the bimonthly journal *Beijing City Planning and Construction Review*. This publication also includes many details regarding the old city redevelopment, new residential area planning and land-use change. (4) *Urban planning*. There have been dozens of planning schemes for Beijing's development since the city was first chosen as the national capital in the thirteenth century. The spatial patterns of this feudal capital that evolved over several dynasties have been examined by historians. *Beijing Urban Construction Material (Vol.I): Planning*, published in 1987, describes the evolution of the urban plans after 1949 and their impacts on urban development. During the last two decades, Beijing implemented urban planning programs twice, once in 1981 and again in 1991. They provide detailed maps showing the expansion of the city and changes in land-use and road networks. In addition, several city maps published between 1981 and 1996 have been collected for verifying the above materials and for confirming urban development, specifically the expansion of the road network and location of new construction.

### **3.6.2 Data on Retail Activities**

In general, the criteria used to measure urban retail structure include four categories: market, retail facility pattern, retail organization, and consumer shopping behaviour (Dawson, 1980:2; Jones and Simmons, 1987:420). These British and North

American city-based criteria need to be modified to reflect the objectives and methodology in this research as well as the availability of Chinese urban data. Therefore, data on retail activities to be used in this study will involve employment, retail facilities, and retail sales. The annual statistical yearbooks of Beijing provide the number of retail establishments, number of employees and the amount of retail sales in each district after 1985. However, it is worth noting that retail sales data for each district released in the yearbooks before 1995 covered only the enterprises administrated by the district. Fortunately, Beijing had a survey of commercial enterprises in 1987. It is the only one available and the most reliable source on enterprises of retailing, wholesaling, service, repair and warehousing. The released survey data consist of location, opening date, ownership, operating types, fixed assets, number of employees, and retail sales in 30 categories. It is impossible to include in the analysis a total of about 40,000 retail enterprises within the metropolitan area. Hence this research will only select for sampling purposes those of department stores and food stores with 50 or more employees within the *Aggregated Urban Districts*. It should be noted that both classifications of the department store and the food store in the database are defined in broad terms and comprise several detailed categories. The former also includes stores selling cultural and sports goods and general merchandise, and the latter comprises those selling grains and oil, groceries, foods, vegetable and aquatic products. In order to interpret the rapid change in the retail landscape, distribution of major department stores in 1996 will be examined and compared to that in 1987. The 1996 enterprise data were obtained from "The Database of Million Enterprises in China" (*baiwan qiye shujuku*) built by the Meiland Information and

Consulting Company in Beijing. In addition, information about the 80 plus largest department stores that were released in the statistical yearbooks is used to augment the database of retail enterprises.

### **3.6.3 Field Surveys**

This study is facilitated by the researcher's personal knowledge of the city and the results of his field surveys. While living in Beijing from 1980 to 1995, the researcher gained direct knowledge about the city from his observations. He has not only witnessed the changes of retail patterns accompanying the economic transformation in Beijing, but also participated in several related research projects over the past fifteen years. In 1987-88 the researcher took part in the investigation of self-service stores and historical markets in Beijing. In 1991-92, he also was involved in the consultation of the 1991 master plan project and the commercial development plan for the *Beijing Western Railway Station* area. These investigations also led to frequent contacts with Beijing's officials and planners, who provided valuable opinions on the city's development. In addition, the researcher conducted a field survey in Beijing in the summer of 1997, augmenting his observations on the major newly-built areas. This personal experience with the city provides an important context and backdrop to the issues and the first data source.

### **3.6.4 Timing of Data**

Since this research that largely involves temporal elements, timing of data is an important issue. This study focuses on the urban development and retail change with the economic reforms initiated in 1979, thereby emphasizing the period of past two decades. However, economic reforms had not been implemented in cities until 1984



when urban reforms began. Statistical data enumerated in 1985, the end of China's Sixth Five-Year Plan period, are relatively detailed. Therefore, the base year chosen for this research is 1985. The final year for the study period is 1996. However, retail enterprise data in 1987 are used for spatial analysis, and a few data of urban development in recent years have also been used to indicate the latest changes in Beijing.

### **3.6.5 Evaluation of Data Resources**

Acquisition of Chinese urban data for the study poses several problems. First, since the implementation of its economic reforms, China's economic statistics have been transformed from the Soviet-style *Material Production System* to the *National Economic Account System*. Some statistical criteria used in the old system have been replaced or modified in the new one. This drawback makes it difficult to compare some criteria historically. Second, due to the outdated statistical collection system, Beijing's statistics emphasize the criteria of ownership and material production, but ignore the criteria of the service sector and the geographic distribution of those criteria. Many indices, released in aggregate format for the entire municipality, cannot be used to analyze the internal differences of the city. It is also necessary for researchers to be cautious when using certain data, because there exists a problem of incomplete description for both definitions and methods in designing the criteria used. For example, the item *retail sales* of districts before 1995 includes only the enterprises administrated by the districts. Therefore, the results from those data can only reflect partial change which occurred in the districts. Third, since the censuses of housing, industry and commerce were not done in the same year, the data, though in

disaggregate format, are impossible to be incorporated into the same model. Fourth, there may be differences in certain data items between the census and the city's annual statistics. Whenever this occurs, the census data are considered to be more accurate, and therefore they are generally used instead of the municipal statistics. Fifth, as high inflation occurred over the study period, economic criteria need to be adjusted according to comparable indices when making temporal comparisons. Despite this minor problem, data of different districts of the same year are comparable spatially.

From the aforementioned considerations, one can conclude that certain limitations exist within the scope of coverage and the format of disaggregation in China's urban data. Although the quality of some particular statistical series will rely on the circumstances in which they are constructed, data in the statistical yearbooks are, by and large, reliable. However, the scarcity of geographical statistics for the city makes it necessary to use several other sources of data. Because of the above-mentioned limitations, the spatial unit used for the analysis will vary according to the data available for each type of indicator. The basic unit for the administrative areal indicator is the district, while a few analyses will be done at the urban neighbourhood level. For the other three types of indicators, the major focus for analysis will be subject to data availability of the geographic features. All the above data are stored in either attribute and/or spatial databases, to be used for various types of analysis.

### **3.7 Applications and Limitations of the Research Methods**

Applications of the research methods in this study are not as separate as they may appear, but are interrelated to one another when the problems are analysed. Both the

exploratory spatial-temporal analysis and the multivariate model deal with the changing urban system in which the retail activities interact with other urban functions. While the former method seeks to find spatial relationships of patterns between retail change and urban development, the latter attempts to establish those relationships statistically. By recognizing urban space as a spatial projection of its socio-economic system, those two methods are employed for the same purpose but on different facets. Within this framework of interaction of urban functions, the spatial analysis in a GIS environment further investigates the relationships between retail change and distribution of other urban functions and between different types of retail outlets. On the bases of the above investigations, the evolution of the retail structure will be interpreted.

The key to using these research methods is to create digital maps and to build databases applicable in a GIS environment. These databases linked to maps can provide information on the geographic location and attributes of retail stores and other urban development indicators in Beijing. ArcView, a GIS software package that facilitates desktop mapping and analysis of geographic data, will be used to develop the retail and urban indicator data sets. ArcView (version 3.0) is a widely used GIS software package in academic research and is effective in exchanging data or digital file with other GIS and mapping programs.

This research began with digitizing maps of various indicators. Urban development indicators include residential areas and housing development, the road network, major industrial areas, and major development zones. Retail enterprises will be digitized by retail types. After digitizing various indicators, it is necessary to geo-

code all features of those indicators. The geo-codes are useful in attaching spatial objects to individual records within a relationship database file (Microsoft FoxPro5.0 files). In addition to geo-coding, much work involves augmentation of other attribute data for each record, such as number of employment, retail sales, opening date, operating types, and others. These attribute data then were used for spatial analysis within ArcView. Research applications in GIS include spatial queries, measuring, analyzing spatial relationships, and creating thematic maps. In brief, the application of these GIS methods can provide a means of visualizing and analyzing urban development and retail structure in order to facilitate testing of hypotheses.

There are some limitations in the methodology of this study. The major weakness is data availability. Since many disaggregate data are unavailable and a few indices have been discontinued in statistics in China, some models cannot be put into use. Also, due to the lack of data, some important factors cannot be directly incorporated in the statistical analysis. For example, urban land price has become more and more important in determining the spatial processes in the city; but it has to be substituted in the analyses by other indirect variables.

There are also a number of problems and limitations associated with the statistical methods. For example, cautions must be taken in using the nearest neighbour statistic  $R$  to analyze spatial patterns (Taylor, 1977; Pinder and Witherick, 1972 and 1973; Yeates, 1974). First, there are two problems of a technical nature, including the study area size and the boundary effect. Since the size of the study area partially controls the value of statistic  $R$ , the more extensive the area taken around a given distribution, the lower will be the value of the statistic  $R$ . The boundary effect

problem concerns whether to include points outside the study area in the measurement of the nearest neighbours for those points within the study area. Second, since the average distance predicted between the nearest neighbours is related to the number of points, it is noteworthy that there is a range of random distribution. Also, in some cases the R value is unable to distinguish between radically different point patterns. Several variations of cluster patterns can yield similar nearest neighbour statistics. In addition, when considering the competitive process of points, it is also possible that conflicting processes could be at work which tend to modify the impact of each other in terms of clustering and dispersal. These processes might yield perhaps a nearest neighbour value near unity, indicating a random pattern.

In a more philosophical vein, questions are often raised as to the reliability of producing an unbiased interpretation of space with questionably objective information, as well as the ability to infer process from observed patterns. The urban space is a complex product of many different forces, and the real world does not correspond perfectly to the results predicted by any specific force. Certainly researchers should proceed with caution in making any such interpretations or inferences. In addition, geographic objects are not free to be located at any particular place within the study area because of various underlying environmental constraints. Those constraints may, in fact, account for the existence of a peculiar distribution of the objects. Therefore, spatial analysis may just reveal partial truth. Indeed, shortcomings exist in the implicit concept of space and in the analytical procedures of the qualitative approach. In view of this, it is imperative to combine qualitative and quantitative methods. This is particularly important for the study of Chinese cities in the era of reforms. The use of a

quantitative approach can provide some ways to represent urban space and to help our understanding of other facets of that space. Meanwhile, a qualitative approach may reveal essential causes of urban change from such aspects as social organization and political reform. In short, combining this approach with spatial analysis will help to provide better explanations to urban processes and urban patterns.

## **Chapter 4 Beijing: A Traditional Chinese Capital City and Its Markets**

*"All over the world there was no one piece of land that was not the emperor's!"*

——— A Chinese idiom.

*"Possibly the greatest single work of man on the face of the earth is Peking [Beijing]. This Chinese city, designed as the domicile of the Emperor, was intended to mark the center of the universe. The city is deeply enmeshed in ritualistic formulae and religious concepts which do not concern us now. Nevertheless, it is so brilliant in design that it provides a rich storehouse of ideas for the city of today."*

——— Edmund N. Bacon, 1974. *Design of Cities* (Revised Edition)<sup>1</sup>

Beijing was established as the national capital during the more recent imperial dynasties in Chinese history. Since the 13<sup>th</sup> century, it has been an arena for many political and social events. For many dynasties, the form of the Chinese society over the centuries before socialism remained similar in terms of its political and socio-economic structures. In fact, by the late 1940s, Beijing's built-up area had not expanded much beyond the city walls built in the Ming Dynasty (1368-1644). In 1949 its urban population was 1.3 million, which was not significantly different from the size during the Qing Dynasty (Skinner, 1977:31). Before the middle of 20<sup>th</sup> century, Beijing was still a traditional Chinese capital city.

### **4.1. Traditional Chinese Society and the Ideal Design for the Capital City**

#### **4.1.1 The Political-Social System**

The imperial dynasties in China lasted for over two thousand years, manifesting

the stability of their political and social structure. The change of dynasties was often accomplished through violence, but the imperial administrative system remained similar. The emperor was always on top of the social hierarchy, while under him were imperial kinsmen, gentry families, officials, and landlords. Peasants, businessmen, and the urban poor were at the lowest level of the society. Known as the Son of Heaven, the emperor had supreme power with which he could do anything he wished, and the imperial edict was over anyone and anything. "All over the world no one piece of land was not the emperor's; within the borders of the land no person was not the subject of the ruler."<sup>2</sup> The rulers governed through their controls in the realm of the superstructure, ideologies and institutions, as well as their regulation for religions and social relations of the society. Among the three major religious and all schools of thought, rulers favoured Confucianism alone, because Confucian ethical spirits were in favour of the overweening emperor. Taoism and others, on the other hand, were considered to be corrupting agents of social relations. "Ruler guides subject",<sup>3</sup> the first principle of the Confucian ethics or rites, was to keep the society in order and to convince people that the performance of correct ritual was vital to the attainment of universal harmony and prosperity (Feuchtwang, 1977:593). The rites then became a deeply-rooted ideology among the Chinese people. Of course, building cities ought to match these ethical codes and meet the ruler's demand for administration.

This political-ideological structure was based on the traditional social system and agricultural economy. The basic social organizations in the traditional Chinese society were various kin groups and native-place associations<sup>4</sup> that also followed the rites and



hierarchical order. However, a kin grouping or an association whose name specified only a place might function as a guild (Golas, 1977:562-3), which had an impact on urban commercial patterns. Since agriculture was believed to be the source of wealth and regarded as the key contributor to the national economy, commerce and handcrafts were limited and the social status of businessmen remained low. Small-scale agriculture and handcrafts were unable to change the political structure, mass ideology, and social system. Modern industries had not begun to emerge in Beijing until the later part of the 19th century. By 1949, the total number of workers in factories and handcraft workshops was only about 80,000, a very small percentage of the whole employed population (Beijing ECUCH, 1992:5). Therefore, in the traditional society, the political-ideological structure and social hierarchy, rather than economic factors, dictated Beijing's urban development.

#### **4.1.2 The Ideal Design of the Capital City**

The traditional Chinese society, due to the rigid hierarchy of its political structure, generated its special view about the world and ideal for construction of the imperial capital city in the ancient time. This ideal design for capital city construction first appeared in *Zhou Li (The Rites of Zhou)* that was published in the fifth century BC. In this book, a chapter called *A Study of Engineering* proposed principles for designing imperial capitals. It states: the capital city should be a square with each side nine *li* long and containing three gates. In the city there are nine boulevards running lengthwise, and nine similar thoroughfares running crosswise, thus forming a checkerboard street pattern. In front (south) of the centre of the city stands the imperial

courts, and at the back (north) of the centre are market places. On the left (east) of the imperial courts, an Imperial Ancestral Temple is situated and on the right (west) there is a national altar consecrated to the gods of the land and grains. The latter part of the chapter contains principles for the capitals of lower levels. The sizes of those cities should conform strictly to their ranks in the national political hierarchy. As defined by their ranks, every boulevard of the imperial capital should be wide enough for nine chariots to pass through at the same time, while that in a duke's capital, seven chariots, and that of a vassal lord's only five chariots (Dong, 1982:2). These rules were actually a spatial projection of the political-social hierarchy on the imperial system of cities. In short, as the essence of ancient Chinese thought, Confucian regulations and order dictated the form and development of Chinese cities (Dark, 1974:257).

## **4.2 The Origin of the City and Yuan Dadu**

### **4.2.1 The Origin of Beijing**

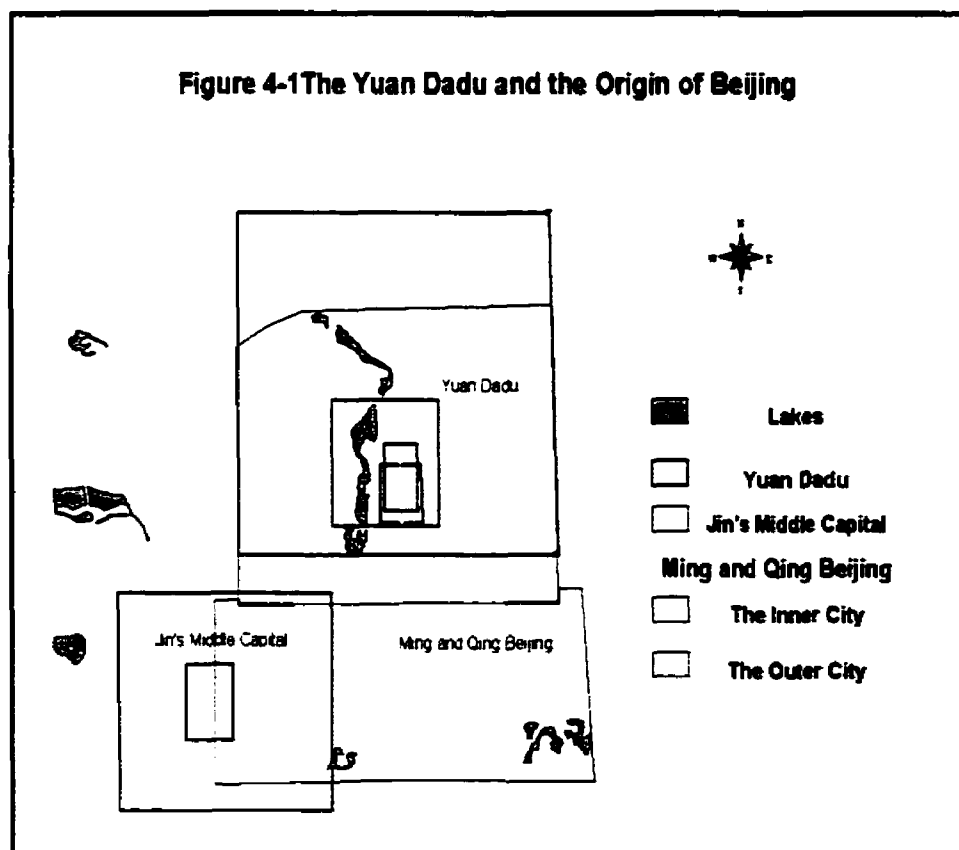
Geographically, Beijing is situated in the northern part of North China Plain, the gateway to the Mongolian Plateau and Northeast China. For centuries, people in North China who wished to go further north had to pass through the vicinity of present Beijing. It was, therefore, natural that the first settlement of Beijing emerged as a communication hub. With the growth of the powerful Yan state, Beijing became a city by the beginning of the third century B.C. The original name of the city was Ji, and for a time it was the capital of Yan. This mighty Yan was among the last seven states conquered by the first Emperor of Qin, who unified China in 221 BC. Ji became an

important frontier city serving to ward off tribes from the north. For many centuries *Ji* served as a political and military centre for the north frontier zone.

After the collapse of the Tang dynasty, *Ji* became militarily important as it was situated between the political realm of Han nationality and the nomadic tribes to the north. Rising in the northeast and taking advantage of the internal turmoil in China, Qidan, a nomadic tribe and the founder of the Liao dynasty, expanded gradually toward the south and finally made incursions into China proper. In 937 A. D. Qidan established *Ji* as their subsidiary capital, naming it Nanjing or the Southern Capital. At the beginning of the twelfth century, another tribe, Nuzhen, founded the Jin dynasty. Jin took over Nanjing in 1115 and renamed it Zhongdu or the Middle Capital. While remaining at the same location, as Nanjing in the southwest of the later Ming Beijing, Zhongdu was moved northeast of Nanjing and much enlarged, reaching 21.9 sq. km in area (Lin, 1961:47; Chen, 1976:379). In the latter part of the thirteenth century the Mongolian leader Khublai Khan founded the unified Yuan dynasty and chose Beijing as its national capital - a very important event in the history of Beijing. The city was called Dadu or the Great Capital, which laid the first foundation of the present city. It represented an innovative achievement in the art of city planning, opening a new chapter in the annals of urban development.

It should be mentioned that there were different interpretations regarding the choice of the site of Beijing. In his presidential address, Griffith Taylor (1942:18-22) argued that the site selection was not due to any marked environmental factors but was a necromantic decision, which reflected his theory of possibilism. However, according

to Hou (1979:316-318), the location where several ancient major roads merged, as well as the source of water, was crucial. In other words, an interregional land-transport network led to Beijing's dominance over most of the towns in the North China Plain. Given the historical facts that the cradle of Chinese civilization was in the Wei River valley, the largest tributary of the Yellow River, and that the main menace came from the north tribes, the imperial capitals of most early dynasties following the Qin were invariably instituted at Changan (present Xi'an). However, the growth of nomadic tribes from the Northeast and the Mongolian Plateau increased the strategic significance of ancient Beijing as the point of contact between these two regions and China proper.



#### **4.2.2 Yuan Dadu**

Khublai Khan had at first intended to build his capital on the site of Jin's Middle Capital, but later decided to construct a new city in the northeast where the present Beijing is located. He might have been attracted by the magnificent Jin summer palace and superb scenery of Taiyechi (Taiye Lake), now the Three Seas (Lin, 1961:206). It was also possible that increase in demand for water resources and consideration of convenient boat transport of tributes and goods from the south of the country made the selection of the new site necessary (Hou, 1979:317). In fact, both of the above were concerns in the construction of Dadu. With respect to the first concern, we can see clearly that the emperor's palace built on the east bank of the lake governed the layout of the city, while other important palatial buildings were erected on the west bank or nearby. The new water system from which Dadu obtained its water supply introduced rivers from the northwestern mountains into Jishuitan (Jishui Lake) and then Taiyechi. The port on the east bank of Jishuitan became the northern terminus of the new Grand Canal, which became the commercial centre of Dadu.

Archaeological evidence has shown that the city of Dadu, from its beginning, was designed in accordance with a detailed plan. A feature of the plan that has drawn special attention is the determination of the central axis of the city. This central axis, the most important in the design of the whole city, was placed along the east bank of Taiyechi and ran due north. As noted earlier, the centre of the imperial palace was positioned on the central axis. However, within the palace, only the main halls that were symbolic to the imperial supreme power were located on this central axis, and all

other buildings were symmetrically arranged on either side. The apex of the central axis, named Zhongxintai (Centre Terrace), was at the northeastern bank of the Jishuitan. By taking this point as the geometric centre of the whole city, Dadu was almost shaped like a square. Each side of the square was about 3.3 km, which doubled the distance from the Centre Terrace to the western bank of Jishuitan. The eastern wall was moved a little west in order to avoid low-lying land (Hou, 1983:28). The Drum Tower and the Bell Tower, used to report time, were built just to the west of the Centre Terrace. There were three gates at the east, west and south of the city walls and two at the north wall. The middle gate at the south wall was placed on the central axis, leading northward to the imperial palace. The streets connected the gates and other parallel lanes, dividing the city into districts and wards.

The planning of Dadu is significant in that, for the first time in dynastic China, it realized the ideal design of an imperial capital. Although the city planning was modified in conjunction with the actual site conditions of the waterways and the lakes, it remained close to the ideal layout. Dadu was as close to the ideal city plan as had ever been executed, even in comparison to the capital cities of Han's and Tang's Chang'an. The layout of Dadu, together with its walls, streets, palaces, and mansions, exhibited a city of impressive proportions and grandeur. It was, in fact, the most striking example of a model city, and one that reflected the traditional Chinese conception of urban space.

#### **4.3 The Imperial Capital in the Ming and Qing Dynasties**

The Yuan regime lasted less than one hundred years and was overthrown by the Ming dynasty. While Ming chose the present Nanjing at the lower reaches of Yangtze River as its imperial capital, Dadu was changed to Beiping (North Pacification). When Zhudi, Ming's third emperor, ascended to the throne, he noticed that from Beiping he could keep an eye on a possible return of the belligerent Mongols and defend the empire against other tribes from the north. Also, because he was the Prince of Yan at Beiping before seizing the throne, the city was a base from which he could spread his control. Consequently, he decided to restore Beiping as the imperial capital in 1403, and renamed it Beijing (North Capital), the first time this name was used for the city. Three years later, planning began to rebuild the capital and the imperial palaces, and extensive rebuilding was undertaken ten years later. The whole project was completed by 1420.

The new design was initiated by the reconstruction of the imperial palace. While the original central axis of Dadu remained, the new palace was moved southward, which is now the Forbidden City (*zijincheng*) we can see today. Behind the palace, a remarkable man-made hill, now Jingshan (Jing Hill), formed from the earth dug out from the lakes and the moat surrounding the palace, became the new geometric centre. On the site of Centre Terrace of Dadu new Bell Tower and Drum Tower were built, and they marked the apex of the central axis of the new city. After the central point and axis were determined, the north and south walls of Dadu were also repositioned but the east and west walls remained. Since the north wall was destroyed when Ming's troops conquered the city, and the north part of Dadu was occupied by military camps,

the new north wall was moved five *li* (or 2.5 km) inside the original rampart. The south wall was moved about one *li* outward. As a result, a larger space was formed in front of the palace, allowing a new Ancestral Temple and a new Altar of Land and Grains (today's Working People's Cultural Palace and Zhongshan Park or Sun Yat-Sen Park) to be built on either side of the central axis. In addition, an enclosed square was designed in front of the Forbidden City where today's Tiananmen Square is located. The Temple of Heaven was built on the left side toward the south of the central axis, where the emperor prayed for good harvest. On the right side was the Altar of Agriculture, a place for the emperor to offer sacrifices to the gods of mountain and river. Even though many changes were made, including reducing the number of gates, the principal patterns and urban form of the new city remained very similar to those of Dadu. In 1553 an outer city wall was built south of the existing one, which enclosed the residents living outside the south gates as well as the Temple of Heaven and the Altar of Agriculture. All major features of the walled city remained intact throughout the Qing dynasty and minor changes occurred during the Republican period in the first half of the 20th century.

The planning of Ming Beijing has received high praise. It is known as one of the wonders of the world (Rasmussen, 1951:v), a masterpiece in human history (Liang, 1951), the crystallization of the fine long-enduring Chinese culture (Chen, 1976:378), and the greatest single work of man on the face of the earth (Bacon, 1974:244). One of the most significant features of the plan is its geometric symmetry. With a few exceptions that were built to conform to the actual geographical features, the streets,



gates, temples, and other structures all corresponded exactly on each side of the central axis. The central axis dominated the city, extending over 8 km from the Drum Tower, through the 40-metre high Jing Hill and the imperial palaces to the south-most Yongding Gate at the outer wall. The most important buildings were situated along the axis, and nine gates were arranged in front of the Hall of Supreme Harmony (*Taihedian*), the emblem of the throne, manifesting the distance between the masses and the seat of the emperor. This layout, representing the principles of planning derived from traditional rites, was intended to represent a rigid order of the society. It purposely created an atmosphere within which people would feel the emperor's supreme power. As described by a famous poet of the Tang dynasty, "...without seeing how magnificent of the imperial palace, how could one know the majesty of the emperor!"<sup>5</sup> (Luo Binwang).

The Inner City of Ming Beijing actually had three concentric walled cities. The Forbidden City clearly formed the nucleus zone. It had a perimeter of 3 km and could be entered through eight gates. The second zone was the Imperial City, about 10km in perimeter and accessible through six gates. It was an area which contained the residential quarters of government officials and imperial lineage. The third zone, or the capital city, was surrounded by a 24km long wall, containing an area of 35.5 sq. km. The fourth zone was the Outer City, which accommodated many people in the poor and lower class. In fact, this pattern of concentric zones was a vivid representation of the political-social hierarchy in traditional Chinese society. In this sense, the planning of Ming and Qing Beijing was actually a manifestation of social hierarchical structure.

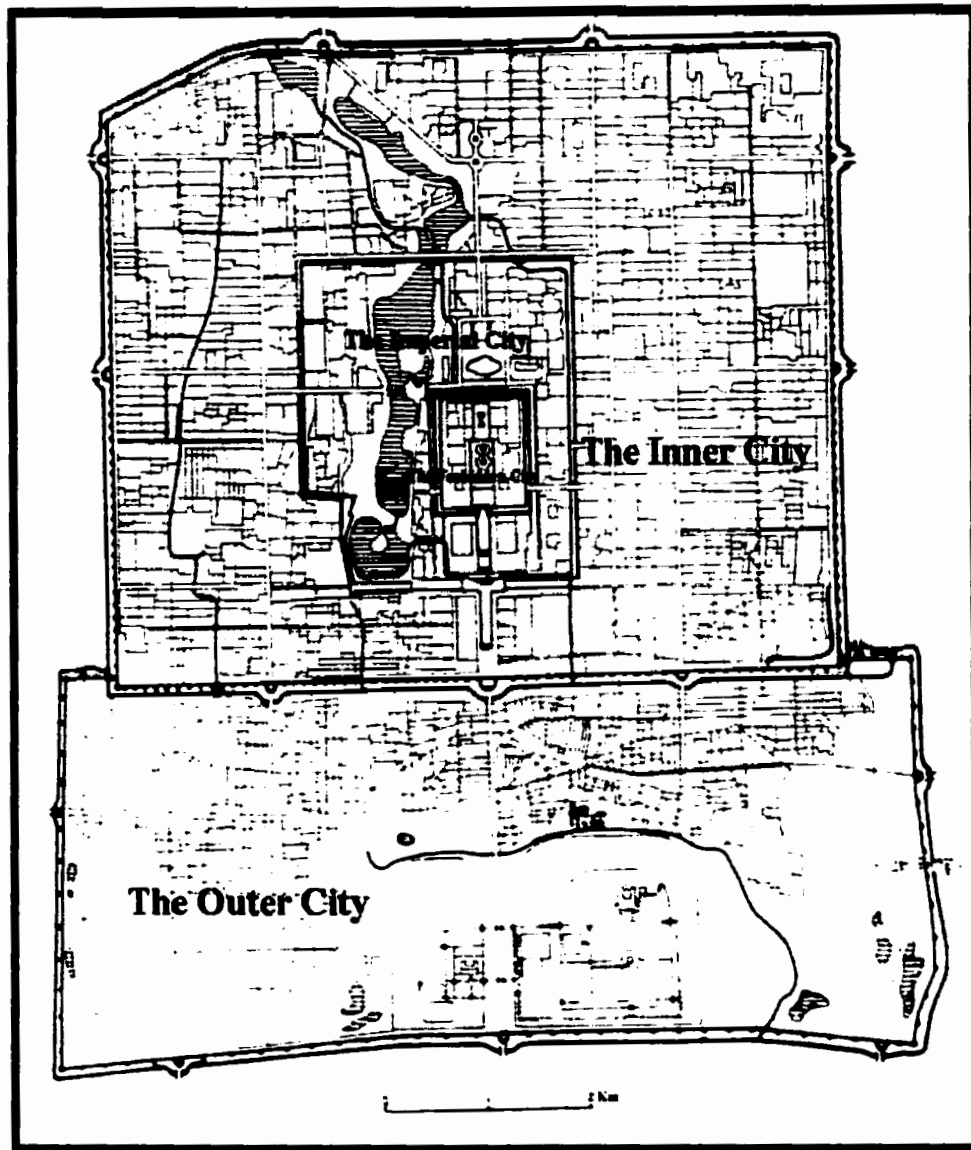


Figure 4-2 The Layout of Ming and Qing Beijing

It is worthwhile to note that at the beginning of the Qing dynasty, the Inner City was assigned to the "Eight Banners (*Baqi*)", descendants of the Manchus military leaders. The emperors thought it desirable to have the caste of loyal Manchus descendants living around the Imperial City. Thus the Inner City became the "Tartar City", while the Outer City was resided by Han people,<sup>6</sup> both officials and those of

lower status. Until the late Qing dynasty, this division between the inner and outer city by ethnicity gradually became less well defined. Many officials and the elite began to own private housing in the east and west of the Inner City. In the latter part of the 19<sup>th</sup> century, the Dongjiaomin Lane in the southeast corner of the Inner City gradually became an embassy quarter for offices and residences of foreign diplomats. The Xinchou Peace Treaty, an agreement that the Qing government was forced to signed with Western powers in 1900, further extended the area of this embassy quarter.

#### **4.4 Retail Patterns in Beijing Before Socialism**

Beijing's retail patterns were developed on the foundation of Dadu, evolving through the dynasties of Ming and Qing and the era of the Republic. As an imperial capital, and because of its well-developed transportation facilities, Beijing was developed into the country's largest commercial centre (Gao, 1987:2). Corresponding to the earlier discussion on the development of a traditional Chinese city, the following analysis will examine the distribution of retail markets of each period in Beijing's history.

##### **4.4.1 The Retail Pattern in Yuan Dadu**

In the initial planning of Dadu, the market was located around the Bell Tower and the Drum Tower. It conformed to the ideal location of a market place in the north of the imperial palace. However, in the Yuan dynasty, Jishuitan Lake was directly connected to the Grand Canal. On this waterway boats carrying grains and other goods from southern China sailed into Dadu and anchored in the port on the northeastern bank of the lake. As a result, the originally planned market grew in the area of the Bell

Tower and the Drum Tower, and later expanded southward to the diagonal street and the port on Jishuitan Lake. This market place, known as the (Bell and Drum) Towers Market, later became the largest commercial centre of Dadu. In addition, two secondary markets emerged later in Dadu and were located at the east and west sides of the imperial city. The Yangjiao Market, approximately at Xisi today, served the western side of the city. The Shumiyuanjiao Market, south of today's Dongsì, was the retail centre of the eastern side of the city. Moreover, there were three smaller markets around the three gates along the south city wall (Gao, 1987:2-4).

#### **4.4.2 The Retail Patterns in Ming and Qing Beijing**

The rebuilding of Beijing at the beginning of Ming dynasty had a significant influence on the distribution of the markets. Enclosure of part of the Tonghui River within the extended imperial city meant that ships could no longer sail on the river and the Jishuitan Lake was no longer the terminus of the Grand Canal. Moving the northern wall also meant that the Towers Market was close to the city's northern edge. With considerable reduction of its trade area, the Towers Market thus shrunk and shifted closer to Dì'an (Earth Peace) Gate, the north gate of the imperial city. It emerged as a local centre for the northern part of the city. The imperial city and its T-shaped square, located in the centre of the city, caused difficulty for people of the east to contact those of the west. They had to make a detour around the north wall of the imperial city, or through Qipanjiè (the Chessboard Street) between Qianmen (Qian Gate) and the southern gate of the square. Consequently, the area inside Qianmen became a communication hub, leading to the formation of the Chaoqian Market, or the

market in front of the imperial city. Moreover, Qianmen provided Beijing a direct access to the North China Plain. Its importance resulted in an increase in population living outside Qianmen and later the building of the outer wall. All these led to the growth of Chaoqian Market and eventually the emergence of Qianmenwai (Outside Qian Gate) Market. In reality, the Chaoqian and Qianmenwai Markets, located inside and outside Qianmen, respectively, were integrated. With the increase of population in the outer city, Qianmenwai became more important and eventually surpassed all other markets in the late Ming dynasty. Meanwhile, on either side of the city, Xisi (also called Xishi or the West Market) and Dengshi (the Lantern Market) grew from the Yangjiao and Shumi yuanjiao markets of the Yuan dynasty. There were also large numbers of shops and stalls at Dongdan on the east and Xidan on the west side of the Inner City, as well as at Caishikou and outside Chongwen Gate, both in the Outer City. In addition, there were also periodic markets and temple fairs such as Dongyeu Miaohui (the East Peak Temple Fair). After the middle of the Ming dynasty, market places in Beijing grew at an unprecedented rate, with a total of over ten thousand medium-sized and large stores during the rule of emperor Wanli (Gao, 1987:7). Beijing was the largest commercial centre in China and also of the world, before it was surpassed by London in 1800 (Skinner, 1977:31).

The pattern of markets of Qing Beijing was basically inherited from that of the Ming dynasty. However, several events led to changes. During the early years of their reign, the Manchus rulers segregated the Manchu in the Inner City from the Han people in the Outer City. As the Manchus knew little about commerce, the markets in

the Inner City declined substantially. The Chaoqian Market was forced to move out of the Inner City, and the Dengshikou Market failed to prosper as a result of the relocation of the Lantern Festival to the Outer City. It was not until the reigns of Kangxi (1661-1722) and Yongzheng (1722-1735) that commerce in the Inner City began to revive. Particularly, the growth of temple fairs, led by the Longfu Temple on the east and the Huguo Temple on the west, promoted commerce there. Dongsi, also called Dongdashi (Big East Market), close to the Longfu Temple, comprised four major money exchangers and many other shops, including bookstores. Correspondingly, Xisi, also known as Xidashi (Big West Market), contained a large number of shops of different kinds.

Nonetheless, when the Outer City became the residential quarter for Han officials and merchants, Qianmenwai, the market outside Qianmen, reached its peak as a commercial centre. It was large, with over 2,000 shops, and extended from Qianmen southward to Zhushikou. This market was also the service centre of the city. Among the city's remarkable 50 restaurants, 16 theatres and 101 hotels, the Qianmenwai Market contained 38 (or 76%) of the restaurants, 9 (or 56%) of the theatres, and 71 (or 70%) of the hotels. In addition, there were 14 or 76% of the city's most notable banks (Gao, 1987:15-27). Even today, many famous retail stores, established before the Republican Era, such as Tongrengtang Drugstore, Liubiju Sauce Shop, and Ruifuxiang Silk Fabric Store, are still in operation there. In addition, Caishikou (the Vegetable Market) and Huashi (the Flower Market) as well as Chongwenmenwai (the Market outside Chongwen Gate) grew significantly in the Outer City, while commercial

establishments also appeared in Dongdan, Xidan, Xijiekou and Beixinqiao within the Inner City.

#### **4.4.3 The Retail Pattern in the late Qing and the Republican Era**

Western influence on the traditional Chinese society had been increasing from the second half of the 19<sup>th</sup> century. Foreign businesses were permitted in Beijing, particularly in the area around the embassy quarters. The Republican regime (1912-1949) was short-lived compared to most of the dynasties in Chinese history, but it had a crucial impact on the retail pattern in Beijing. The most important development was the rapid rise of Wangfujing as a new retail centre. Wangfujing Street was located on the eastern side of the Imperial City and linked the embassy quarters with elite mansions in the east part of the city. At the beginning of the 20<sup>th</sup> century, foreign banks, hotels, hospitals, and stores rapidly increased and were concentrated near Wangfujing. Several events stimulated the commercial development there. At the intersection of Wangfujing Street and the lane outside Donghua Gate, the eastern gate of the Forbidden City, Dong'an (East Peace) Plaza was established in a previous military camp in 1903, accommodating various shops and vendors. With the introduction of department stores, restaurants, theatres, and other recreational facilities, the plaza gradually became a modern shopping centre. By 1935 it contained 263 shops and 390 individual vendors (Gao, 1987:32). In 1907 French investors opened the Beijing Hotel. In 1919 it was reconstructed as a 7-storey French-style building and became the largest and most luxurious hotel in the city (Beijing ECUC, 1992:103). Other foreign investments also made their way into the city. The

Americans founded the Union (*Xiehe*) Hospital in the east side of the street in 1915 and the British also established a theatre and a hotel in east Chang'an Street. Lured by these major attractions, shops and firms became increasingly concentrated in the Wangfujing area. British, French and American businessmen opened companies selling clothing, jewellery, electrical products and insurance. German, Russian, and Japanese merchants also followed. Moreover, with over ten banks anchored in Wangfujing, some Chinese retail companies, such as Zhongyuan Corporation based in Tianjin, established their branches or chain stores there. As a result, by the 1930s Wangfujing paralleled the scale of commercial development at Qianmen.

The overthrow of the Manchu also made it possible for the city to build new streets and thoroughfares, leading to changes in commercial land use at certain locations. The opening of Tiananmen Square and a connection of the eastern and western Chang'an Streets resulted in a decline of the Qianmen commercial centre. However, previously small centres like Xidan and Tianqiao grew significantly. In the western city, Xidan was the fastest growing commercial node, most noticeably with the agglomeration of services including restaurants, hospitals, and photo studios. Tianqiao, which started as a result of relocation of some shops from inside Qianmen in the 1910s, gradually developed as the most popular market in the city.

#### **4.5 Application of Central Place Theory to the Retail Patterns of Beijing**

Gao, with the author's assistance, made an attempt to apply central place theory to the study of the historical commercial patterns in Beijing (Gao, 1987:76). The basic assumption of the application is that the highest-order commercial centre would grow



at the geometric centre of the city, and that the actual locations of commercial centres would be influenced by local factors and historical events. In Yuan Dadu, since the imperial palace was located at the southern part, the market place could be established very close to the central point of the city. The spatial proximity of the northern terminus of the Grand Canal and the designated market place stimulated the Towers Market to grow to be the largest in the city. The emergence of two secondary centres on either side of the imperial city was perhaps due to government<sup>7</sup> supply needs and an increasing population in the southwestern part of the city and even outside the city<sup>8</sup>. In contrast, the northern part of Yuan' Dadu was largely occupied by military camps, and therefore there was minimal need for commercial establishments in the area. Consequently, the pattern of central places is rather simple (Figure 4-3a).

During the dynasties of Ming and Qing, the Forbidden City as well as the Imperial City occupied the core area of the Inner City, the ideal place for the growth of a commercial centre. In theory, commercial functions of the ideal marketplace would diffuse to other potential nodes by the shortest possible distance. Only at favourable locations, in the directions of least restriction for diffusion and with trade areas exceeding a certain threshold, could the diffusion of functions be received and the formation of commercial nodes become a reality. In Ming Beijing, such potential nodes might include Qianmen, Di'anmen, Dongsi, Dongdan, Xisi, and Xidan in six different directions. Located just outside the Imperial City, all six locations were at intersections of major streets and thoroughfares leading to the city gates. However, the Chaoqian Market inside Qianmen became dominant due to its advantageous location.

Xisi and Dengsi/Dongsi developed into second-order centres because of their historical developments, while Di'anmen, Xidan, and Dongdan formed third-order centres. Along with a greater dominance of the Qianmen Market as a result of rapid commercial growth in the Outer City during the Qing dynasty, the hierarchy of the central place system gradually matured and became complete (Figure 4-3bc).

The commercial development in the late Qing dynasty and the Republican era manifested a bipolar structure in Beijing. Wangfujing overtook Dongsi as the commercial centre of the eastern city, and later quickly rose to be a modern commercial centre in the city. It was so close to the previous centre of Dongdan that they actually formed a single first-order central place for the city. It was also important that Xidan surpassed Xisi in the western city and that Tianqiao's ascendance to a second-order central place in the Outer City. These changes reflected the prominent roles of political and social factors, which was particularly true in the formation of the Wangfujing commercial centre. Wangfujing lacked the advantageous location of Dongsi and Dongdan, but it linked two powerful and wealthy communities. The embassy quarter represented the influence by the West, while the extremely rich elite community, connecting the Imperial City through Donghua Gate, was favoured by the families of aristocrats and gentry (Skinner, 1977:529-30). Promoted by these two communities, Wangfujing could surpass other commercial nodes in the eastern city. Other changes in the city included linking up the eastern and western Chang'an Streets, greatly improving the accessibility of Wangfujing and Xidan. This

subsequently reduced the significance of Qianmen and ultimately affected the central place system.

Using a survey of Beijing by American sociologist Sidney Gamble in the 1920s, Skinner proposed an urban ecology model that was characterized by two nuclei, the centre of merchant activity and the centre of gentry and official activity (Skinner, 1977:530-33). It was not coincident that these two nuclei appeared spatially to be the two largest commercial centres. Rather, it indicates that the analysis conforms to the geographical pattern.

After examining the distribution and hierarchy of notable commercial places, a central place system that evolved over the three periods could be formulated. Basically, the system formed according to a principle of  $K=3$ , which demonstrated that the market principle or the demand-supply forces dictated the creation of the retail pattern. There were a few exceptions due to obstructions, including in the commercial patterns of Yuan Dadu and Ming and Qing Beijing. It is clear that the omission of the central market in Ming and Qing Beijing was a result of the presence of the Forbidden City. In the same way, the patterns and rankings of the central places were considerably altered in the peripheral areas due to the presence of the city walls. Examples are the Caishikou and Chongwai markets, whose upgrading could be understood as they contained some commercial functions of a would-be second-order centre on each side of the Outer City if walls did not exist. By the Republican era, the central place system became rather complicated when the trade areas of Qianmen and Wangfujing largely overlapped each other (Figure 4-3d).

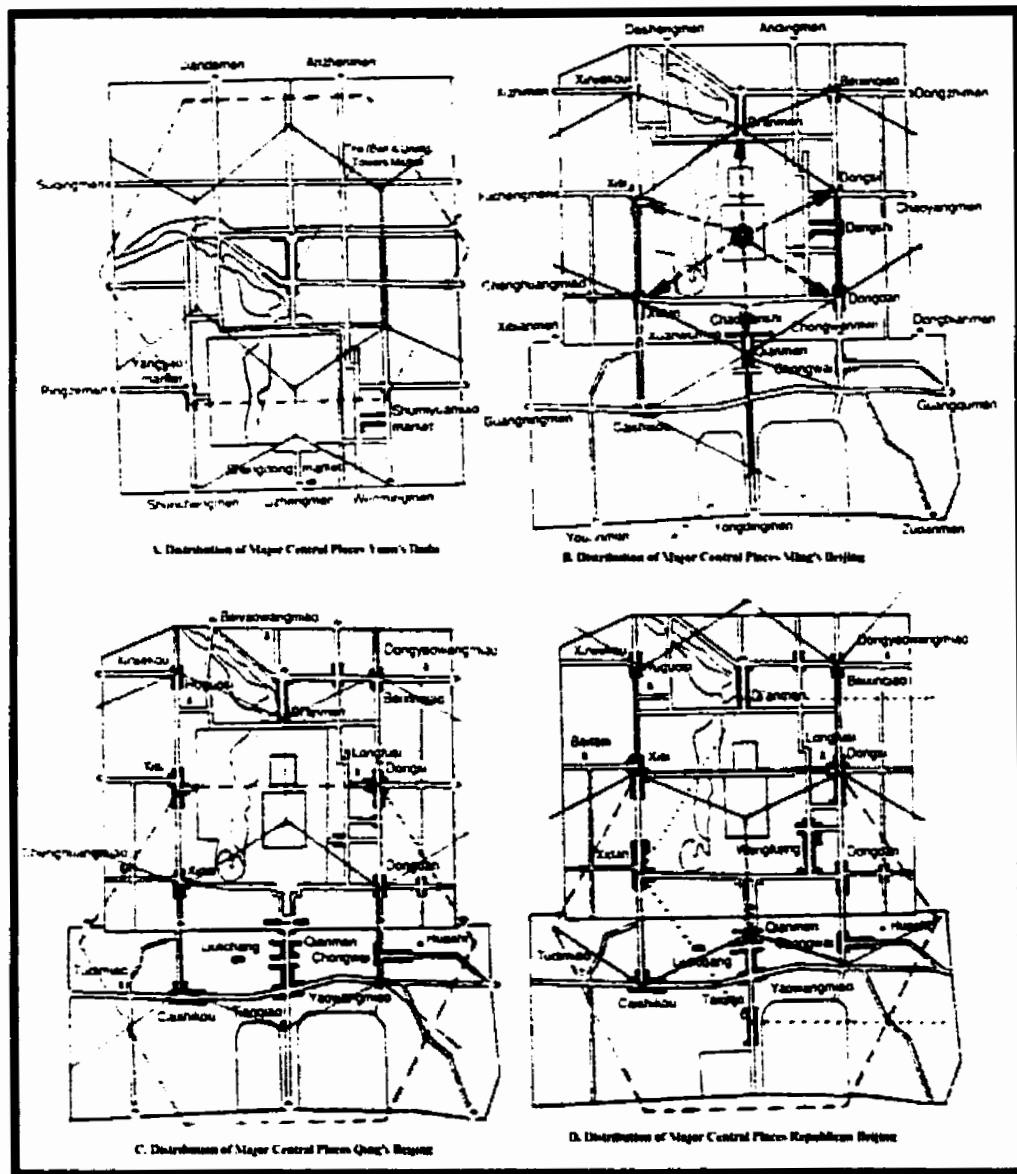


Figure 4-3 Retail Central Places in Yuan Dadu, Ming, Qing and Republican Beijing

The evolution of the central place systems from Yuan Dadu to Ming and Qing Beijing reveal that the urban layout was the prime factor influencing the retail patterns. The layout not only determined the location of urban functional areas, but it also controlled the road network and population distribution. The latter two seriously

affected the retail pattern through their impacts on store locations and trade areas. However, the urban layout was designed according to certain ideological and ethical principles under specific socio-economic settings. Moreover, social, political, and historical events might also have direct impact on the size and location of individual commercial nodes.

#### **4.6 Comprehensiveness vs. Speciality**

This inquiry discusses two aspects in urban retail development. One relates to the spatial organization of a retail node or area, while the other concerns the composition of commercial centres in the city. With respect to the first issue, the question is how certain types of retail activities spatially relate to other business and services within a commercial centre. As explained in urban geography, the division of urban functions both within different sectors and in space will be intensified with industrialization as a result of technological innovation. Therefore, it is impossible for pre-industrial Beijing to achieve a high degree of division of labour and to produce a significant specialization in commercial land-use and differentiation in cityscape. Gao's (1987) research showed that most of the market places contained some service functions (restaurants, theatres, etc., in Xidan). A survey of domestic banks in Beijing revealed that three major primary types of bank - *Qianpu* (as money exchanger), *Piaoguan* (exchange and transfer of money) and *Loufang* (transfer between banks) - existed in the Qianmen area until 1935 when they began to merge (Li, 1982:9-10). Among a total of 69 domestic banks in 1941, 64 were located outside Qianmen and two inside the gate. Since the commercial area embodied most of sojourners for business, most guilds

or native-place associations were also set up there. The Qianmen area comprised such comprehensive business activities that it could be described as a *Central Business District*. However, there also existed internal spatial differentiation. Banks and trading companies specializing in low-bulk, high-value products tended to be at the centre of the business nucleus, whereas labour- and land-intensive types of economic activities were at the periphery of the *central business district* (Skinner, 1977:536).

Retail establishments within commercial centres were organized by the speciality of their commodities. In Yuan's Towers Market there existed at least nine speciality markets for silk, fur, beads, rice, and others. The Xisi Market during the Ming dynasty comprised markets for horses, sheep and goats, and fruits. In Qing Beijing, the speciality of retailing could be deduced from place names. For example, Huashi was a market place for flowers, and Caishikou meant the entrance of a vegetable market. Even today many street names in the Qianmen area still reflect the retail activities in its 500-year history (Table 4-1). This concentration of speciality stores may have resulted from competition among retailers because consumers tend to compare both the price and quality of goods before making a purchase. There was also a spatial concentration of sojourners from similar native places. They usually monopolized a specific line of goods and controlled the guild (Skinner, 1977:538-46; Golas, 1977:555-80), which added a sociological explanation to retail speciality.

Retail speciality could also form speciality retail areas. *Liulichang* was such a speciality retail area renowned for its antique, painting, and old-book. *Liulichang*, literally meaning a workshop of coloured glaze, first emerged as a place for bookstores

in early Qing dynasty because many candidates for the imperial examination lived nearby (Lin, 1977). During the reign of Emperor *Qianlong* (1735-1796), many famous scholars who participated in the compilation of *Siku Quanshu* (*The Complete Works of the Four Treasuries*) lived close to *Liulichang* in the west of the Outer City. As a result, many bookstores were opened for business along the street. Since then, a number of famous stores selling antiques, ancient paintings, and second-hand books, had anchored the east-west running street. By the early 1950s there were still over 170 stores there. Some of those stores, including Rongbaozhai, Baoguzhai, Jiguge, and the China Bookstore, are still in operation today.

Table 4-1 Street Names as Reflections of Specialized Retail Activity (Qianmen Area)

Street Name (in Chinese)	Meaning Indicating its Specialized Retail Activity
Zhubaoshi Jie	The street for pearls and jewels market
Roushi Jie	The street for meat market
Xianyukou Jie	The entrance of fresh fish market
Guozishi Hutong	The lane for the market of fruits
Meishi Jie	The street for coal market
Liangshidian Jie	The street of grain shops
Zhushikou Jie	The entrance of jewellery market
Caoshi Jie	The street of straw market

Source: Compiled from "*Beijing Ditu*" (*Atlas of Beijing*), p.30. Beijing: China Survey Press, 1994.

### Summary

As the imperial capital of several later dynasties, both Yuan Dadu and its successor, the Ming and Qing Beijing, were built according to the traditional Chinese concept of capital city design. Under the influence of the political-social hierarchical

structure of the traditional Chinese society, the city layout represented the Confucius ethical rites and social order. It featured a north-south central axis, symmetric grids, the central location of the imperial palace, and the magnificent city walls, all of which purposely represented the emperor's super power.

Both Ming and Qing Beijing demonstrated a spatial structure of concentric walled zones. The Forbidden City was situated in the core, surrounded by the Imperial City that contained the residential quarters of government officials and imperial lineage. The Inner City made up the third zone, and the later-added Outer City formed the out-most zone which accommodated many poor and lower class citizens. These walled zones, from the core to the periphery, reflected the political-social hierarchy of the traditional Chinese society.

The retail patterns in Yuan Dadu and Ming and Qing Beijing were basically governed by the city's layout and its social structure. Stimulated by proximity to the water transportation hub, the largest commercial centre was developed close to the geometric centre in Yuan Dadu. During the Ming and Qing dynasties, urban reconstruction led to the growth of Qianmen market, which finally dominated the city's retail pattern. Influenced by Western capital, Wangfujing became another major commercial centre in the early 20<sup>th</sup> century, forming a bipolar commercial structure in the city. The application of central place theory to Beijing's changing retail patterns was intended to explain this evolutionary process. While assuming that the highest-order node would have the priority to grow in the most advantageous location, the



central place system could be developed. However, the central place landscape evolved to be increasingly sophisticated in the city.

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**Notes:**

1. Bacon, Edmund N., 1974. *Design of the Cities* (revised edition), New York: Viking Press, p.244.
2. A Chinese idiom says: "Putian zhixia, Muofei wangtu; Shuitu zhibin, Muofei wangchen".
3. The first principle of the "three cardinal guides" that, together with "five constant virtues", formed the basic Confucian ethics. The "three cardinal guides" refer to ruler guides subject; father guides son, and husband guides wife. The "five constant virtues" include benevolence, righteousness, propriety, wisdom, and fidelity.
4. Fei Xiao-Tong, an eminent Chinese sociologist, proposed this point of view in his paper *Associations Based on Kinship and Native-place* (*Qin Yuan yu Di Yuan*) which was published in the 1940s. See Fei's collection of papers *Native China* (*Xiangtu Zhongguo*).
5. It is in *Di Jing Pian* (*Ode to the Imperial Capital*), a poem written by Luo Bin-Wang of the Tang Dynasty. It says "Budu huangju zhuang, anzhi tianzi zun".
6. Many articles and books published in the West referred to the Inner City as "Tartar city" and the Outer City as "Chinese city". However, for centuries, the Inner City had become more Chinese than Tartar in the early 20th century. Please see: Taylor, Griffith, 1942, *Environment, Village and City. Annals of the Association of American Geographers*. Vol.32, no.1, pp. 18-22; and Lin, Yutang, 1961, *Imperial Peking*, pp. 26-39.
7. Shumi yuanjiao Market offers such an example. Shumi yuan was an organ of the government in dynastic China, while *jiao* indicated that the market was located at the corner of the government office yard.
8. Since the Ji City and Jin Middle Capital were all situated at southwestern Dadu, it would be reasonable to postulate that the city's southwestern part was an old residential area and might contain more population. The Yangjiao Market might serve a certain population outside the south and west city walls. Lin Yutang noticed that: "The southwest corner of the Inner City, extending to the west of the Outer City, is the oldest part and contains the greatest number of old pagodas dating from the seventh to the thirteenth centuries." (See, Lin, Yutang, 1961, *Imperial Peking*, p.35). Recent archaeological evidence has also confirmed that a street in *Xuanwu* District (southwest of the Dadu) is the oldest one in the present city. It can be traced back to *Jin's* Middle Capital.

## **Chapter 5 Socialist Beijing: Reconstruction of the City and Retailing**

*"Politics is the commander, the soul in everything".*

*"The core of leadership of our whole undertakings is the Chinese Communist Party, and the theoretical basis of our ideology is Marxism-Leninism"*

— Mao Zedong.

Since the Communist Party took control of mainland China in 1949, Beijing has again served as the political centre, replacing Nanjing that served as the national capital during the nationalist rule. Similar to the proletariat revolution, urban development in Beijing experienced a fundamental transformation from the dynastic period. The traditional Chinese city planning rules were rejected because they reflected either a spatial organization of social segregation or feudal ideas (Fung, 1986). With planning rules being replaced by principles derived from socialist ideology, urban structure was reshaped by new social, economic, and political forces. Reconstruction in Beijing made it so different from its past, that it is necessary to examine the new spatial structure created and its development in this socialist Chinese city.

### **5.1 The Socialist Politics and Urban Development**

Socialist China was a dictatorship of the Chinese Communist Party (CCP). The basic goal of the CCP was to transform China into a socialist state. On the basis of Marxist class struggle theory, the party divided all its citizens into five categories: members of the CCP-controlled organizations, workers, peasants, the bourgeois, and

enemies. Through various political education and terror campaigns, the bourgeois was transformed, and the enemies were eliminated. The CCP made itself the sole legitimate leadership in the Constitution, holding absolute power to exercise all its dictatorial pursuits.

For three decades after 1949, socialist ideology remained an essential guiding principle of Chinese urban development. Basically, this principle required that socialist cities should be distinguished from capitalist cities in both function and form. According to the socialist ideology, all goods, services and facilities, necessarily provided by the state, must be equally available and accessible to all. Therefore, a new form for the city would be socially uniform and classless (Lo, 1987). Strictly speaking, this is impossible in practice due to the friction of distance. Nevertheless, with its absolute power, the communist government practised its ideology in urban construction. In the late 1950s, this utopian idea prevailed in China and led to a campaign to reduce and finally eliminate rural-urban differences, one of "the three major differences (*sanda chabie*)".<sup>1</sup> Its objective was to maintain a close worker-peasant alliance that was defined as the foundation of the communist reign. This campaign was turned into action in Beijing. In the city plan of 1958, the building of over 40 satellite towns was proposed (Beijing ECUCH, 1987:199; Sit, 1996:122). An effort was also made to realize urban-rural integration, by decentralising new developments to 10 major island-like "dispersed clusters (*fensan jituan*)"<sup>2</sup> around the central city and separating them with green belts (Beijing ECUCH, 1987:40). This planning form apparently fits Saarinen's "organic decentralization" theory and certainly

has the potential to benefit the environment (Kwok and Zhu, 1997). In essence, it represented a radical attempt to bridge the rural and urban life styles and levels of economic development. Although this plan was not fully implemented, its spatial pattern influenced the planning of Beijing in the 1980s and even 1990s. Furthermore, the political pursuit by the central authorities strongly influenced Beijing's urban construction, as reflected in its three planning principles: "*serving the production, serving the central government, and serving the working people*"<sup>3</sup> (Beijing ECUCH, 1987:206). Thus, the locations of industry and commercial facilities in the city should be planned to achieve these goals.

Planning was also used as a tool to create an urban space, symbolizing the Communist party's ideology and new administration. Since the original north-south central axis was regarded as a feudal product, the east-west running Chang'an Boulevard was considerably widened to 40 to 80 m and lengthened to about 20 km to symbolize the new socialist society. The Central Commission of the CCP and the State Council, the most important administrative institutions, are located along this boulevard. At the intersection point of the new and old axes, a former enclosed courtyard was reconstructed into Tiananmen Square, facing which is the People's Great Hall. While this building, where people's congresses are held, represents the supreme power of the People's Republic, the square symbolizes the "heart" of new China. Like the Red Square in Moscow, Tiananmen Square serves predominantly as a symbol, while its occasional use for large mass rally mobilized by the state also has political significance. It has been expanded to be the largest public square of its kind,

and its magnificence is meant to symbolize the power and paramount position of the world's largest communist party. This point of view is supported by the fact that most political or administrative buildings in Beijing were large and in specially selected locations. Examples include the "Ten Great Construction Projects (shida jianzhu)"<sup>4</sup> that were built as monuments in the late 1950s to celebrate the ten-year anniversary of the Communist reign. In short, application of the principles known as "the three services" in urban construction revealed its political significance.

## **5.2. The Planned Economic System and Industrialization**

The socialist economy is the foundation for the existence and development of the communist regime. In order to control the means of production and the economic activity, the communist government accepted the Marxist doctrine of state ownership and adopted the Soviet centrally planned system. The government first confiscated all foreign and capital enterprises and transformed them into state-owned businesses. After 1952, small private businesses were gradually controlled by the state through co-operative and joint ownership. However, the Chinese communists implicitly accepted Marxist theory that socialism was impossible under economic backwardness and would become a reality only on the basis of modern industry. In order to consolidate the newly established socialism, industrialization thus became the major objective of revolutionary China.

The centrally planned system not only facilitated industrialization but also directly influenced urban development. With the power to allocate workers, land, commodities and capital, the central government was able to plan the whole economic

processes, including production, circulation, distribution and consumption. As a result, most investment, accumulated mainly through reducing consumption, was provided to industry, particularly heavy industry. Meanwhile, the State Planning Commission, the most powerful ministry in the government, was in charge of the national plan on capital investment and construction. All physical construction in the city had to be approved by the economic plan. In this sense, urban planning was part of the goal of the economic plan, and urban structure represented its spatial layout.

Non-socialist cities were regarded by the CCP as capitalistic and parasitic consumption centres. Therefore, under the socialist ideology, all socialist cities must be production centres rather than consumption ones. Thus, industries, particular heavy industry, were introduced into the urban development in Beijing.

"Beijing doesn't have an industrial base. As a national capital, Beijing should not only become a cultural, scientific, and artistic city, but it also should be a large industrial centre. Now the percentage of working class (workers) to the total population in Beijing is only 4%, but it is 25% in Moscow. Therefore, Beijing is still a consumption city. Most of the population is not workers for production but merchants. Clearly, there is a need for industrial development in Beijing"<sup>5</sup> (Beijing ECUCH, 1987:110).

This Soviet experts' suggestion also reflected the expectation of many communist leaders in China at that time. Industrialization was related to the growth of the working class in the city and regarded as the survival of the proletariat regime. Under the circumstances, manufacturing in Beijing, as elsewhere in China, became the first priority for investment and was developed at an extraordinary speed. Between 1949 and 1975, the number of workers in manufacturing increased from 159,317 to 1,115,449, an average annual growth rate of 7.77%, as compared to an annual rate of

2.96% in commerce (Sit, 1996:137). Manufacturing, with a share of 46.9% in total employment, then became the largest sector in Beijing by 1975. In fact, more than half of the total investment between 1949 and 1978 was in manufacturing, among which 87.9% was invested in heavy industry (Li, 1984:5; Sit, 1996:154). It should be noted that rapid industrialization in Beijing, as in other Chinese cities, benefited from the participation and motivation of local governments. As manufacturing was the largest source of revenue for municipalities, municipal governments exerted much effort toward industrial development and strove to reinvest as much as possible in manufacturing.

Table 5-1. Beijing's Major Industrial Districts Established in the 1950s-1970s

Industrial District	Location	Major Industries	Area and Number of Factories (1990)
Shijingshan	West	Iron and Steel Complex, Electrical Power Stations	14 sq. km, about 70 large and medium-sized plants
Yamenkou	West	Power Station Equipment, Heavy machinery	
Dongjiao (The Eastern Suburban)	East	Machinery, Chemical, Construction Materials, Cotton Textile, Printing and dyeing mills	15 sq. km with over 200 plants, including Tonghuihe and Shibolidian
Fatou	Southeast	Heavy Chemical industry	2.5 sq. km, 30 plants
Jiuxianqiao	Northeast	Electronic	5 sq. km, about 40 major factories
Qinghe	North	Woollen mills, construction materials	4.5 sq. km, about 30 major factories.
Nanjiao (The Southern Suburban)	South	Chemical, Paint, Leather, and Electroplate plants	Total 7 sq. km but scattered in 4 areas; over 200 major plants.
Fengtai	Southwest	Rolling Stock Plants, Machinery	

Source: Compiled from the Editorial Committee of Beijing Urban Construction History (The Beijing ECUH). *Jianguo yilai de chengshi jianshe ziliao - fangwu jianzhu* (Beijing Urban Construction History since 1949). 1992, Volume 5: Architecture, pp. 10-11; and 1987, Volume 1: Urban Planning, pp. 51-53. See Figure 6-8 for the industrial distribution.

Industrial development in Beijing may be divided into several periods. It underwent very rapid growth during the first twelve years of socialism (1949-61). While industrial employment and factory building space increased over three times, industrial output, with comparable price, increased 23.7 times (Beijing ECUCH, 1992:7). Over a thousand factories were built within eight industrial districts (Table5-1), which dominated the industrial landscape in the city until the 1980s. For example, the Dongjiao (eastern suburban) Industrial District, occupying an area 5.5 km long and 3.5 km wide, contained 63 major factories with 99,000 workers in 1961. Throughout the 1960s, due to "the Great Leap Forward (*Dayuejin*)" and "the Cultural Revolution (*Wenhua dageming*)", industrial development stagnated. However, a large number of workshops, sponsored by urban neighbourhoods and schools, emerged within the old city area. Building of the Yanshan Petrochemical Complex began in 1969. It is the largest of its kind in China, marking another period of growth in the city's history in industrial development. Due to a national defence strategy consideration, this huge industrial plant was located at the foot of the mountains lying to the southwest of the city. Meanwhile, the Capital Iron and Steel Company in Shijingshan was expanded several times and became one of the largest in the country. It was not until the later 1970s that economists and officials noticed the problems in industrial structure, known as "too heavy". More investment was then shifted to the production of household appliances and other consumer goods, leading to the development of a more balanced industrial structure. Despite this balanced development, the proportion of output by heavy industry in Beijing was still 63.7% in 1979, which ranked second only to



Shenyang among all extra-large cities<sup>6</sup> in China (Pan, *et al*, 1983; Li, 1983:5; Liu, 1984:439; Beijing ECUCH, 1987:79).

### **5.3 Growth of the Wall-enclosed Work-Units**

Political ideology and economic planning were actually tools used by the government to exert control over the Chinese people. This control was also exercised over the social system. Among all the measures for social control, the household registration and work-unit systems were the most significant. The household registration system classified the entire population into either agricultural or non-agricultural. The government provided foodstuffs, housing, and other social welfare only to the non-agricultural population. Since the registration status was required for people to live legally in a city, to find a job, and to move to other places, this system worked effectively as a means of controlling rural-urban migration and the population size of cities.

The primary employment and administrative unit in socialist Chinese cities is the "danwei", or work-unit. It is a term frequently used in Chinese urban life, but not well known to westerners. Referring to those existing enterprises and institutions, the work-units represent a great variety of work places within the centralized socio-economic system. Before liberation there were many institutions and a few factories under private ownership in Beijing, but they were not components of a unified work-unit system. As a result of revolutionary social transformation, the work-unit system was institutionalized only after the CCP took power. The government turned all seized industrial and commercial properties into state ownership and established new work-

units. The function of a work-unit, apart from business management, included political campaigning, welfare distribution, social management, and even legal activities (Li, 1993:346-8). The task of every work-unit, whether large or small, included provisions of employment, housing, medical care, children's education, family planning and pension benefits. Typically, most work-units were enclosed in a walled yard where the workplace, residential buildings, and social services were either closely juxtaposed or intermingled. While the walls evidently signified protection and control and the gates defined points of controlled entry, the system, in its physical form, created a socio-spatial unit for the domestic and social activities of its members. As the state could not manage every individual unit, this system, in fact, led to work-unit autonomy. Given the hierarchical administration of work-units, they were spatially and functionally separate from each other even if they were neighbouring units. Each of these units represented an integration of work, residence, and social networks within an urban space, and formed a separate and self-sufficient community. Thus the socialist city was actually an agglomeration of a large number of such "small societies (*xiao shehui*)".

As soon as this system was established, each work-unit was granted a certain administrative rank. Different ranks of work-units meant different level of political power for access to benefits. A work-unit with a higher ranking might be able to obtain more funds from the government and have the autonomy to make decisions. The richer financial resource provided the means for the work-unit to build large numbers of apartments for its staff. This phenomenon is particularly common in Beijing as it contains many high-ranking work-units. All the central ministries and military

departments were ranked at the same or higher level than the municipality. These ministries and departments could expand their "big yards (*dayuan*)" and build their own activity centres and residences, even if they were in conflict with the planning rules of Beijing. The municipal planning department was not as powerful as these high-ranking work-units and had to allow their development. As a result, they often caused chaotic land use practices and urban sprawl. The influence of the work-unit system can also be found in the service sector. A survey in Beijing showed that in 1982 there were 26,000 beds in hotels open to the public, but more than 30,000 beds in hotels owned by work-units were assigned only for specific uses. Similarly, among a total of 97 hospitals in Beijing's urban districts, 41 were affiliated with high-ranking work-units. At the same time, there were about 130 theatres each with over 600 seats owned by work-units, compared with only 60 such theatres for the public. In particular, there were 17 theatres in Sanlihe, an area of less than 3 sq. km, where a number of central government ministries were located (Liu, 1985:442).

#### **5.4 Urban Expansion under Socialism**

Urban planning and its implementation in Beijing before the reforms vividly demonstrated the influences of political ideology, economic planning and social controls of socialist China. The urban development process may be divided into three stages: the early 1950s, the First Five-Year Plan (1953-57), and the 1960s and 1970s (Yu, 1986; Beijing ECUCH, 1987:74-97). As Soviet planners actively participated in Beijing's planning in the early 1950s, the city's development actually reflected the influence of the Soviet model. Not only taking Moscow's master plan as a model,

urban planners in Beijing also adopted Soviet planning concepts and standards for land-use zoning, housing construction, community organizing and service provision (Fung, 1986; Beijing ECUCH, 1987:94). The early 1950s was a period of economic recovery from years of devastating wars, and therefore, the initial urban reconstruction was focused mainly on the old city area. Between 1949 and 1952 only 17.6 sq. km of land were newly developed in Beijing, adding to its original built-up area of 109 sq. km (Yu, 1986; World Bank, 1993:45, Table 3.2). The national capital underwent very rapid urban expansion during the First Five-Year Plan period (1953-57). A total of 106.5 sq. km of farmland was expropriated for urban uses, among which 53.8 sq. km was fully developed (World Bank, 1993:Table3.2). By 1959, the built-up area of the city had increased by 220.9 sq. km, an average annual expansion of 13.6 sq. km. Between 1951 to 1959, the most evident growth was found in the northwest, east, and west. An educational and research area, accommodating the Chinese Academy of Sciences, Peking University,<sup>7</sup> "the eight major institutes"<sup>8</sup> and others, was newly developed in the city's northwest. The eastward growth was dominated by the expansion of industrial plants. A number of central government ministries, including the State Planning Commission and the Ministries of Finance, Construction, and Foreign Trade, were located in the city's west. The Western Suburban Industrial District was also established, leading to significant growth to the west. Since the construction period in Beijing took several years, urban sprawl persisted in the city until the early 1960s. As the whole nation was in economic and political turmoil during the following decade, urban expansion was slow in Beijing. The total amount

of expropriated farmland for urban construction was only 34.7 sq. km during the period 1962 to 1980, and the increased urban built-up area was 61.8 sq. km. Yu's (1986) research also revealed that the average annual increased built-up area in Beijing between 1959 and 1983 was only 6.26 sq. km, less than half of that during the 1950s. In this period, while the city continued to grow toward the northwest and the east, the most rapid expansion was found in Shijingshan to the west. As priority was given to iron and steel industry at that time, this steel town was soon enlarged and partially amalgamated with the built-up area of the city. Meanwhile, new developments also filled in the areas between those finger-like expansions. It should be noted that, despite a rift between the former USSR and China occurred in the early 1960s, Soviet influence on urban planning, in general, in Beijing and in other Chinese cities, remained strong.

The urban expansion process in socialist Beijing can be interpreted by examining the housing construction in different periods. Based on the housing census data of 1985, the maps (Figure 5-1, 5-2, and 5-3) show the percent of housing built in each urban neighbourhood of Beijing in different decades. Before the advent of socialism housing development was concentrated within the walled city. In the 1950s residential construction shifted to the western government quarter, the Eastern Suburban Industrial District, the northwestern education and research area, and the military compounds in the west. During the 1960s and 1970s, urban expansion continued to grow outward in nearly all directions, but growth in Shijingshan in the city's west was the most significant.

The process of urban development in socialist Beijing reflected the fluctuation of its planned economy that was influenced by political movements. Its spatial pattern clearly showed the significant impact of the sprawling wall-enclosed work-units. Not only the central and the municipal governments contained in closed-yard-style compounds, but also all major factories, universities, research institutes, and other organizations. In the industrial districts, each walled factory was a self-contained unit with its production area, residential area and an activity centre. In the higher-education area, every university campus comprised a teaching area, a shopping and entertainment area, a student dormitory section, and a faculty and staff residential area. The two largest campuses of Tsinghua and Peking University enclosed 307 ha and 170 ha, respectively. The eight major institutes each contained an area between 34 and 88 ha and were separated by walls (Beijing ECUC, 1992:499-501).

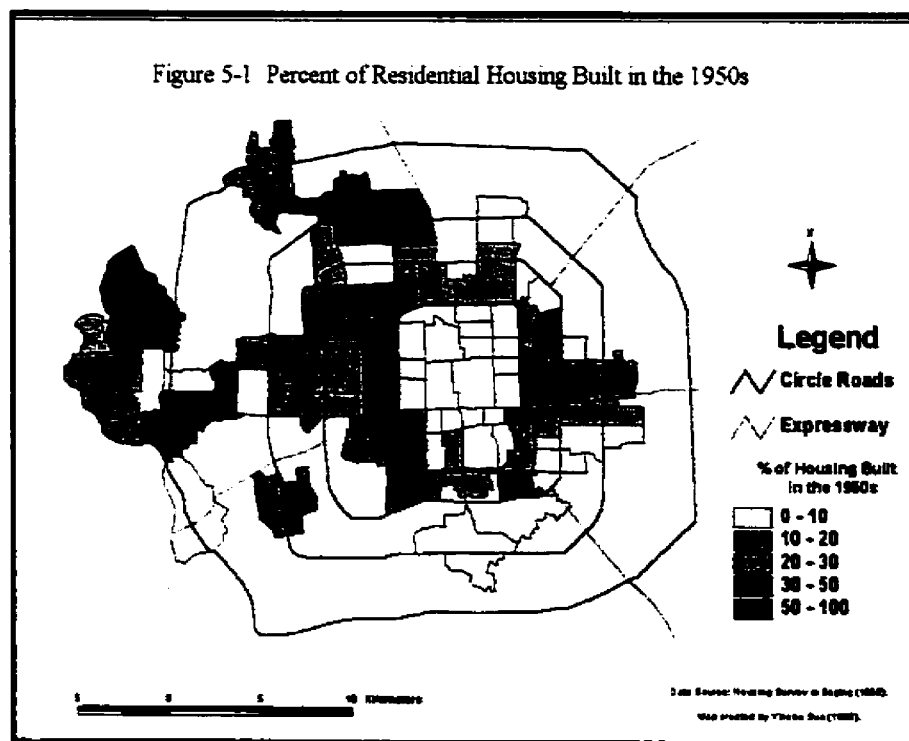


Figure 5-2 Percent of Residential Housing Built in the 1960s

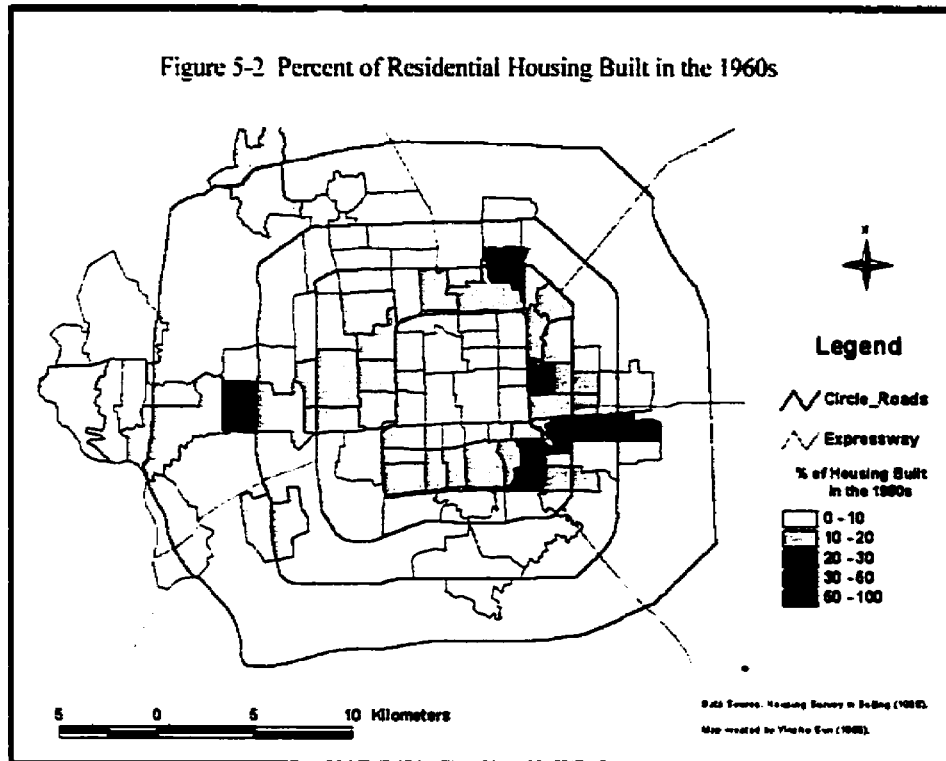
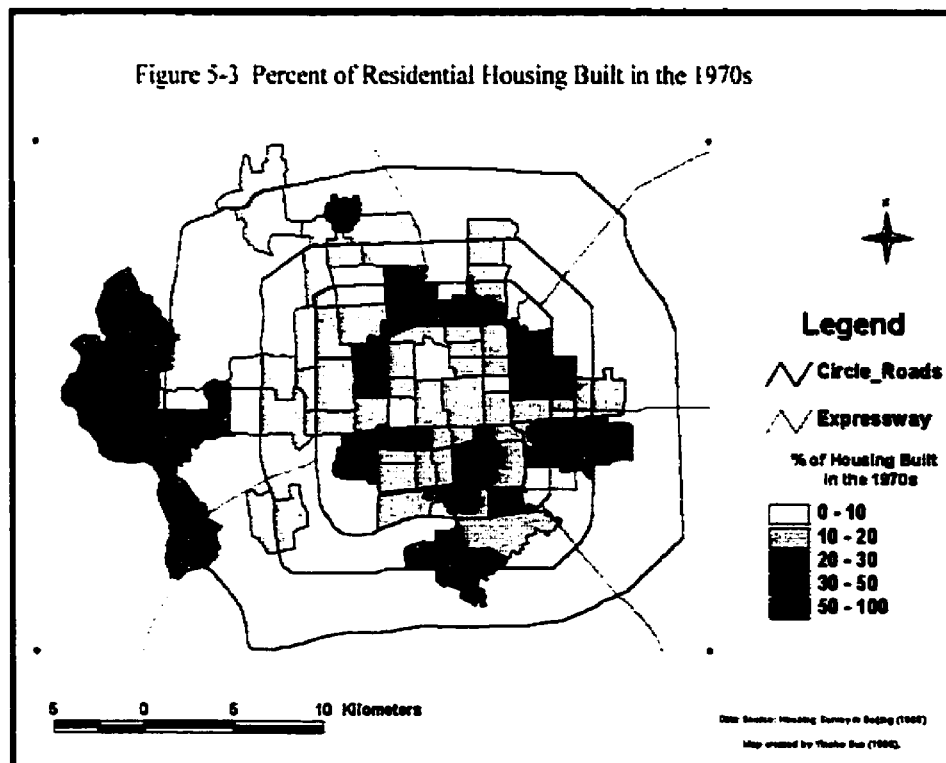


Figure 5-3 Percent of Residential Housing Built in the 1970s



## 5.5 Retailing under Socialism

After the CCP took power in China, it immediately shifted its work from the countryside to cities. Retailing, as an indispensable sector of the national economy, revived during the period of reconstruction and rehabilitation (1949-1952). During the First Five-Year Plan period (1953-57), the Beijing Department Store, a 26,000 square-metre building that was labelled as "the first store of new China", as well as six other medium-sized department stores, were built as symbols of new socialism. However, as commerce was regarded as non-productive sector and a breeding ground of capitalism, it did not receive significant attention in the planned economy. Capital accumulated from commerce was largely invested into industry, particularly heavy industry.

Table 5-2 Changes in Beijing's Economic Sectors and Retailing: 1952-1980

Percent in GDP						
Year	1952	1957	1965	1975	1978	1980
Primary	22.2	10.6	12.5	6.6	5.2	4.3
Secondary	38.7	47.8	59.0	66.6	71.1	68.9
Tertiary	39.1	41.6	28.5	26.8	23.7	26.8
Commerce <sup>1</sup>	15.6	15.2	7.7	7.5	7.6	7.9
Retail Changes						
Year	1952	1957	1960	1970	1978	1980
Number of Retail Establishments	53,370	31,366	6,714	8,031	10,628	10,974
Employment in Retailing	N/A.	149,548	117,000	130,543	159,827	159,763
Percent of Retail Employment	15.1	12.3	N/A.	N/A.	5.4	5.0

Notes: 1. Here "Commerce" includes retailing, wholesaling, and catering.

Source: 1. Beijing Statistical Bureau, 1997. *Beijing Statistical Yearbook 1997*, p. 494 & 515.

2. Long, X., 1992. *A Compendium of Information on Beijing*, p. 156.

3. Sit, V. 1996. *Beijing: From a Traditional Capital to the Socialist Capital*, p. 135 & 137.

4. The Editorial Committee of Beijing Urban Construction History, 1992. *Historical Material on Beijing Urban Construction Since 1949*, p. 46.



Retailing in Beijing, as elsewhere in the country, experienced continuous decline during the periods of "The Socialist Transformation of Industry and Commerce (*shehui zhuyi gongshangye gaizao*)" (1952-56) and "The Great Leap Forward" (1958-1960). Not only did the merger of individual small retailers greatly reduce the total number of outlets, but the institution of state-private joint-ownership and a later buy-out by the state also severely damaged the sector. The failure of "The Great Leap Forward" and the occurrence of natural calamities dealt serious blows to agriculture and industry inflected further damages. Consequently, the number of retail outlets in 1960 had been reduced by about one-fifth that in 1957, while employment also shrank more than 20%. The share of commerce in the GDP ultimately dropped by half between 1957 and 1965 (Table 5-2). The "Great Cultural Revolution" that followed created economic and social turmoil in the country. The impact was more serious in Beijing, as it was the source of the political movement. The annual average of new commercial floor-space between 1958 and 1970 was less than one-seventh that during the First Five-Year Plan period. This situation improved slightly in the 1970s, but retail development was still under the control of the state economic plans, as the political-economic system in the country remained unchanged until the beginning of economic reforms.

The central government attempted to solve the problems of consumer and agricultural product shortages by issuing ration coupons, and fully controlled the retail sector through monopolies of state-owned and collective-owned enterprises (Sun, 1997:32-33). The share of retail sales from state-owned retail enterprises increased

from 12% in 1949 to 84% in 1978, whereas those from private ownership decreased from 83% to a negligible amount. The proportions fluctuated slightly over time as the economic force attempted to work while controls by the economic planning was relatively relaxed. However, all the attempts to initiate changes in the retail sector were always defeated by political campaigns such as the "cutting the capitalist tails (*ge ziben zhuyi weiba*)", and the retail sector was further transformed to "pure" socialism. As a socialist political centre, Beijing was always much more advanced in adopting socialist doctrines than other cities and regions in China. Compared to the average share of retail sales by the state-owned enterprises in the country that reached 54.6% in 1978, the proportion in Beijing was 80% (Table 5-3). These changes revealed that the purpose of socialist transformation was to reorganize retailing as well as other sectors under the Party-led management bureau. Thus, retail development under socialism was not governed by economic forces but dictated by the socialist planned system and the political campaigns of the CCP.

Table 5-3. Changes of Beijing's Retail Sales by Ownership

Year	Total Retail Sales (million Yuan) <sup>[1]</sup>	State (%)	Collective (%)	Joint (%)	Private (%)
1949	282	11.70	4.96	0.36	82.98
1952	873	26.49	16.74	0.69	56.08
1957	1712	46.06	22.42	29.95	1.58
1965	1966	80.12	19.88	--	--
1970	2189	79.63	20.37	--	--
1978	4417	84.13	15.87	--	--
1980	6132	80.01	19.29	--	0.85

Note: [1]. The values of this column are in the current-year prices.

Source: Beijing Statistical Bureau, 1990. *Forty Years in Beijing*, p. 82

## **5.6 Retail Organization, Planning Principle, and Spatial Pattern in Socialist Beijing**

### **5.6.1 Administrative Organization of Retail Enterprises**

After the onset of "The Socialist Transformation of Industry and Commerce" (1952-56), urban retailing was reorganized into a network of hierarchies under the ministries that exercised vertical control through the municipality down to enterprise units. Basically, the Ministry of Commerce was responsible for the administration of retail activities. It mainly managed department stores, but many of its subordinate branches took charge of grocery and food, textiles, household appliances, hardware, and so on. However, some retail activities or stores were under their own ministries. For example, grains and cooking oil stores were managed by the National Grain Bureau, which was in charge of grain rationing in the city. Pharmacy and medical instruments and bookstores were managed by the Ministry of Health and the Ministry of Culture, respectively. Each retail establishment was ranked by its operational power and administrative level. The levels of administration consisted of ministry, municipal department, district bureau, and urban neighbourhood to resident committee, or their equivalents. Retail firms might be affiliated with state-owned production companies, attached to government agencies, or sponsored by other organizations and enterprises. Thus retail enterprises might be administrated by a central ministry or by a local government, but the former owned mostly large and medium-sized enterprises and dominated the sector. While the Ministry of Commerce formulated nation-wide retail policies, the various administrative bodies were responsible for guiding and

monitoring their subordinate enterprises. Therefore, this vertically managed system functioned to ensure the execution of policies and decisions of the central government.

#### **5.6.2 Retail Planning Principles**

Under the centrally planned system, development of all economic sectors, including retailing and urban construction, must follow the national economic plan. Development of urban retail projects must conform to the general principles of urban planning. According to the planning principles for the socialist city, retail planning was also based on “the three services (*sange fuwuyi*)”. In order to achieve the political goal of equality, commercial facilities in socialist cities were expected to be rationally located and not over-concentrated. Retail over-concentration before socialism was considered to be an illness of capitalism, and it was to be changed and replaced by a uniform distribution pattern. The planning principle of socialist production also stated that commercial establishments should be sited in proximity to industrial areas for the convenience of the workers. This principle was intended to promote the development of commercial and service centres at locations close to new suburban residential districts. These commercial centres would avoid excessive shopping trips to downtown and create employment opportunities. This principle, in fact, provided the *raison d’être* for the self-contained work-unit system. According to it, many large factories and companies built their own retail facilities to service their staff. With regard to the principle of serving the people, retail establishments were to meet individuals' needs for consumer goods. Because demand for consumer goods occurred at different frequencies - daily, periodically, or occasionally, this planning principle

suggested the establishment of a hierarchical network of retail centres, with each containing different types of stores to meet various frequencies of demand. While stores in high-level centres provided many varieties of goods, those of a lower-level centre only offered daily necessities.<sup>9</sup> The retail hierarchy may be a result of spatial competition among establishments in market-oriented societies. However, creating a hierarchical retail network was a planning principle in socialist China as well in the former east European Bloc (Heineberg, 1979:316-20). In the socialist planned economy different sizes of stores would be used to satisfy different levels of consumer demand.

Under those principles, the municipal planning department usually adhered to the proposal of the central ministries on building stores in planned commercial areas. At the city level, after store construction projects were proposed, the municipal Economic Planning Commission would evaluate the projects and provide investment allocations in its five-year or annual economic plan. The local urban planning department would assist in determining detailed locations and initiate the construction. Once a store was built, it would belong to a central ministry or the municipality, depending on the source of the investment. The same process occurred at the district level. Since the ministries of the central government had more investment funds than municipal and local governments, they administrated the largest stores in the hierarchy of retail establishments, and the lower level authorities managed stores at the bottom of the hierarchy. In this sense, the retail hierarchy reflected the socialist administrative structure. Unlike market economies, the formation of the retail hierarchy in socialist

Chinese cities was not a result of spatial competition among stores but through the mechanism of economic and urban planning. Therefore, both the hierarchy of retail centres and the types of stores within the newly established centres were certainly not as numerous and diverse as those of a market economy. Even within an agglomerated retail centre, stores would neither compete because of their common state-ownership and different operation fields, nor would they co-operate with one another because they belonged to different administrative ministries or authorities.

### **5.6.3 Spatial Distribution of Retail Centres in Beijing**

The hierarchical retail system is subject to various demand thresholds for different consumer goods. As shopping frequency at retail centres is inversely proportional to their level in the hierarchy, higher-level centres that serve more consumers are fewer in number and more distant from consumers. In socialist Beijing, retail services were organized at four levels: the city, the district, the residential district, and the neighbourhood<sup>10</sup> (Beijing ECUCH, 1992:48). Consumers made daily shopping trips to the two lower levels of stores. However, they would only make weekly or even monthly shopping trips to stores of the district and those of the city level. In order to identify this hierarchical pattern of retailing in the city, a published data set of 1982 (Xu, 1984:41) is used to analyze the distribution of retail functions at that time. Since very few major commercial facilities were built during the early 1980s, the data still provide a meaningful pattern of retail establishments before the economic reforms.

Table 5-4. Classification of Retail Centres in Beijing (1982)

Level	Names of Retail Centres	# of 1 <sup>st</sup> order Functions				# of 2 <sup>nd</sup> order Functions						# of 3 <sup>rd</sup> order Functions				Total ( $\Sigma$ )
		A	B	C	$\Sigma$	D	E	F	G	H	$\Sigma$	I	J	K	L	
I	Wangfujing		2	12	14		22	5	4	6	37	2	2	1	11	67
	Qianmen	1		18	19	1	51	7	8	5	72	11	4	2	27	135
	Xidan	1	1	7	9		9	3	5	7	24	7		1	16	57
II	Dongsi		1	3	4		26	5	1	2	34	5	3	2	5	53
	Dianmen		1	5	6		5	1	4	2	12	7	3	3	5	36
	Caishikou			5	5	1	6	4	2	1	14	6	1	2	5	33
	Chongwai	1	1	2		4	2	4	1	11	5	5	5	5	6	34
	Xisi			2	2		6	4	2	1	13	4	3	2	4	28
	Xinjiakou			1	1	1	4	2	2	1	10	6	2	3	5	27
	Chaowai			2	2		6	1	1	1	9	5	1	2	7	26
	Dongdan			3	3		8	2	2	1	13	2	2	5	2	27
	Haidian			3	3	1	2		1	3	7		2	2	2	16
	Tianqiao			2	2	1	1	1		1	4	4	2	5	4	21
III	Dengshikou						1	3	1		5	4	2	2		13
	Guanganmen								1		1	3	1	2	2	9
	Zhongguancun						1	1			2	5	1		7	15
	Beijingzhan						2		1	1	4	4		1	23	32
	Yongdinglu					1	1	1	1	1	5	1	1	1	3	11
	Dongdaqiao							1	1		2	5	2	1	2	12
	Ganjiakou					1			1	3	5		1	1	2	9
	Hepingli						2		2	1	5	2	1	2	4	14
	Beitaiping Zhuang					1					1	2	2	1	4	10
	.....															

Notes:

1. Data obtained from Xu (1984). The retail functions have been reorganized and reclassified by the author in order that the categories are compatible with the general classification recognized in the West. While some specialized functions are merged, two categories of "others" are omitted because they were not defined. As a different category is used for calculating the number of retail functions, the values of the totals are, of course, different from the original. Rearrangement of the order of the functions also makes a change in the final gradation of retail centres.
2. The author further classifies the selected retail functions into three levels or orders. The first-order includes: A - Super Clothing Stores (with over 30 selling counters); B - Large Department Stores (with over 80 selling counters); C - High-order Specialized Stores, including those of fine handicraft articles, clocks and watches; musical instruments, cultural and sports articles, antiques, and furniture. The second-order functions include: D - Department Stores (with selling counters between 25 and 80); E - Clothing Stores; F - Hardware Stores; G - Drugstores (including traditional Chinese medicine stores); H - Bookstores. The third-order retail functions refer to: I - General Merchandise Stores; J - Grocery Stores; K - Vegetable Stores; and L - Food Stores.

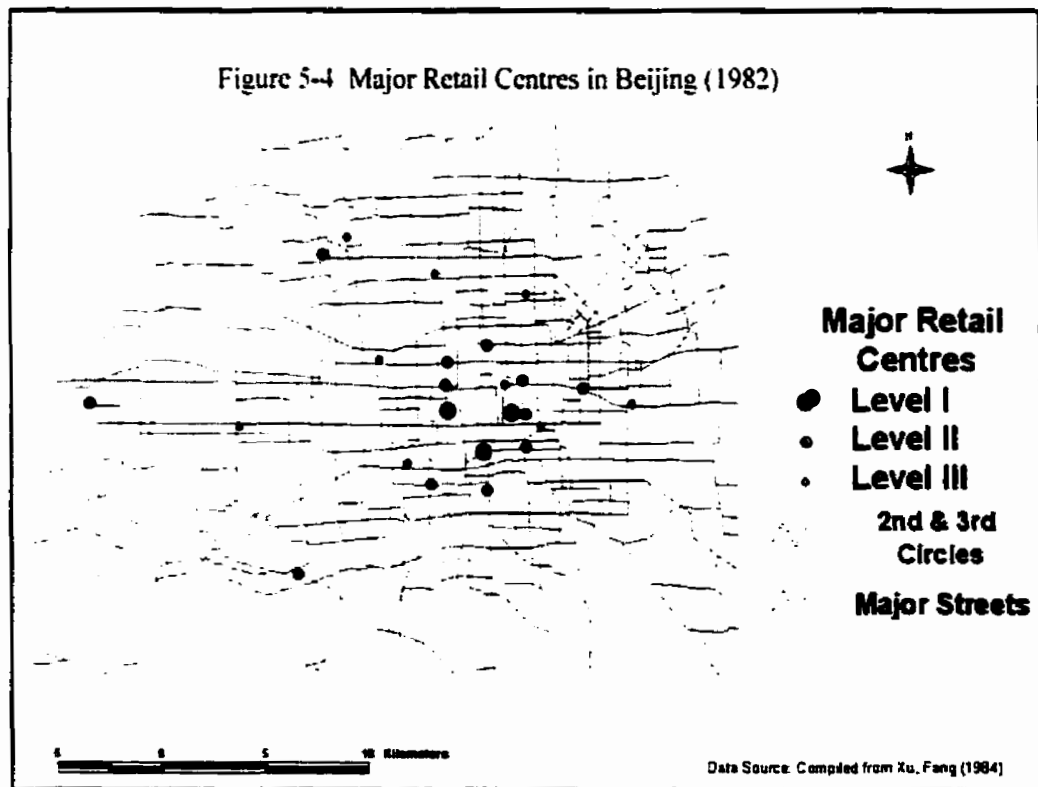
Source: Recompiled from Xu, Fang, 1984, *Beijing Shi de Shangye Fuwu Dili* (The Geography of Commerce and Service of Beijing City). *Jingji Dili* (Economic Geography), Vol. 4, No. 1, p. 41.

Since the research was not entirely focused on retailing, the data must be refined and selected to conform to the current objective. First, reclassification of retail categories involves selecting the most typical retail functions. The categories used in this study not only reflect the characteristics of the socialist retail system, but are also compatible with the general classification adopted in the West. The new classification includes 12 major retail functions that are made through merging and ambiguous types are omitted. Also, the 12 selected categories are further aggregated into three orders. The first-order retail function includes those of the largest department stores and clothing stores, and the highly specialized stores selling items such as musical instruments, cultural and sports articles, and antiques. The second-order refers to medium-sized department stores, including hardware, textile and clothing stores, drugstores and bookstores. It should be pointed out that drugstores in Chinese cities are more specialized, as a pharmacy is usually attached to every hospital and medical clinic. The third-order represents retail functions most closely related to general needs, including general merchandise stores, grocery stores, vegetable stores, and food stores. Table 5-4 shows the number of each function at all larger retail centres in the national capital.<sup>11</sup>

As a different category is used for calculating the number of retail functions, the total numbers of retail functions at those centres are different from the original version. However, by rearranging the order of the functions, the gradation of retail centres can clearly be observed. Qianmen, the oldest retail centre, remained prosperous. It had the most specialized and clothing stores. Wangfujing's position was



enhanced by the Beijing Department Store built in 1954 and many other speciality stores subsequently established there. Wangfujing and the rapidly growing Xidan centre were anchored by the city's three largest department stores. The top three, the Beijing Department Store, Xidan Emporium, and Dong'an Plaza (renamed Dongfeng Plaza for political reasons in the 1960s and 1970s), also ranked second, third, and seventh of the country's largest stores, respectively, in terms of retail sales (Almanac of China's Economy, 1982:v-260). Xidan rose quickly to be compatible with the above two as a result of significant urban expansion in the city's west since the 1950s. The rebuilding of the Xidan Emporium in the early 1970s also contributed to the upgrade of the Xidan centre. Consequently, these three retail centres, with their more first-order functions than others, could be classified as the city-level centres (level I). Thus the



bipolar structure in the first half of the 20<sup>th</sup> century had changed to a tripartite one (Figure 5-4).

Ten level II retail centres could be recognized as they contained some first-order retail functions. Most of these retail centres were located within the former walled city and had developed in the past. Dongdan, Dongsì, Dianmen, Xisi, Xinjiekou, Caishikou, Tianqiao, and Chongwai all had a considerable amount of commercial activity before 1949. However, most retail facilities in Haidian and Chaowai were built during the socialist period in order to minimize consumers' travel to shopping. While the former served residents of the higher education and research area and the latter the Eastern Suburban Industrial District, both of them were built close to their district government. Each of them was occupied by a medium-sized department store with a floor space of about 5,000 square metres, and other outlets including a vegetable and grocery market, a bookstore, a drugstore, and several speciality stores. In addition, the retail centres of Fengtai and Shijingshan should be added to this level as the original survey omitted these two areas.

As the two lower levels of retail centres were more important for people's daily needs, they were usually built simultaneously with residential development. Except for a few hurriedly-built apartments in the early 1950s, most residential areas constructed during the socialist period included essential services and retail shops. The residential district centres (level III) usually were located near major roads, accessible to residents from several neighbourhoods. The number, size, and rank of stores in residential district centres were determined on the basis of the number of residents in the district.

In planning for residential development, retail stores were divided into three types according to the frequency of demand - essential, daily, and periodical. While essential goods include groceries, grains and oil, and daily necessities contain general petty goods and medicines, periodical goods comprise vegetables, other foods, household appliances, and books. In Beijing, the planning of smaller residential districts each with 5,000 to 20,000 residents included stores selling essential commodities and some daily necessities. In residential districts each with 20,000 to 70,000 residents, retail outlets selling all three types of goods were planned. A grocery store with a floor space of 400 to 600 square metres usually served 300 to 400 people, while a department store had 800 to 1,000 square metres in floor space and served 7,000 to 10,000 residents (Table 5-5 & 5-6). The larger the community, the more complete the retail facilities and services. The centre of the community was usually selected to include such retail outlets, so that they could effectively serve the people within the community.

Table 5-5 Standards of Retail Establishments for Residential Areas

Type of Stores	Served Population (consumers) (1,000)	Size or Floor Space	Residential District (I: 50-60,000p; II: 30,000p)	Small District (I: 15,000p; II: 7,000p)	Residential Block (2,000 - 4,000p)
Groceries	3 - 4	400 - 600 m <sup>2</sup>	Y	Y	Y
Grains & Oil	6 - 7	250 -300 m <sup>2</sup>	Y	Y	
Food & Drink	4 - 5	80-90 m <sup>2</sup> p.t.p.	Y	Y	Y
Department Store	7 - 10	90-100m <sup>2</sup> p.t.p.	Y	Y	
Drugstore	20 -30	15 m <sup>2</sup> p.t.p.	Y		
Household Appliances	30	16 m <sup>2</sup> p.t.p.	Y		
Books	30 -50	15 m <sup>2</sup> p.t.p.	Y		

Note: p.t.p. refers to per thousand persons.

Source: Compiled from The Research Group of Beijing Urban Planning Management Bureau, 1979. Studies on the Nature and Rational Size of Residential District. *City Planning Review*. No.3, pp. 21-29.

Table 5-6 Examples of Retail Provisions with Residential Development in Beijing

Type of Residential Area	Name of Residential Areas	Planned Population (1,000)	Store Selling Daily Necessities <sup>1</sup>	Stores Selling Daily Goods <sup>1</sup>	Stores Selling Periodical Demand Goods <sup>1</sup>
Neighbourhood	Xibianmen	2	P <sup>2</sup>		
Residential Block	Putao Yuan	2	Y <sup>2</sup>		
	Hongmao Gou	2	P		
Small District	Xinyuan Li	6	Y	P	
	Shuidui	7	Y	P	
	Longtan	10	Y	P	
	Yuwangfen	13	Y	Y	
	Fuwai Nan	16	Y	P	
Residential District	Tuanjie Hu	21	Y	Y	G <sup>2</sup>
	Jinsong	26	Y	Y	Y
	Sanlitun	30	Y	Y	Y
	Guomianchang	35	Y	Y	P
	Jiuxianqiao	53	Y	Y	Y
	Hepingli	65	Y	Y	Y
	Yuetan	70	Y	Y	Y

Notes: 1. Stores are divided into three categories. *Daily Necessities* refer to groceries, grains and oil, food and drink. *Daily Goods* include general merchandise and drugs, while *Periodically Demand Goods* comprises goods sold in department stores, vegetable stores, food stores, household supplies stores, and bookstores.

2. Y refers to having most of the types of stores; P means to have some of the types; and G means the type of stores having a greater trade area.

Source: Compiled from (1) The Research Group of Beijing Urban Planning Management Bureau, 1979. Studies on the Nature and Rational Size of Residential District. *City Planning Review*. No.3, pp. 21-29; (2) The Beijing ECUH, 1992. *Historical Material on Beijing Urban Construction Since 1949 - Volume 5, Housing Construction* (II), pp. 255-344.

It is worthwhile noting again that a fairly large part of the socialist urban space was constructed around large walled work-unit compounds, in which some retailing of daily necessities were accommodated. Generally speaking, the larger the work-units,

the more the retail functions would be found within their courtyards. For example, each of the three urban neighbourhoods - Yanyuan, Qinghuayuan, and Yongdinglu in Haidian District, is a large work-unit. The Yanyuan Urban Neighbourhood is the Peking University, which is a compound with more than 15,000 students, 8,000 faculty and staff, and their families. It has its main retail centre in Sanjiaodi (*the Triangle Area*) as well as several minor retail facilities located in the northern, eastern and western neighbourhoods. This planning pattern, in theory, reduced the need for people to commute when going to work or shopping. In fact, it represents a distinctive work-unit system of retailing.

### **Summary**

The socialist ideology of the CCP aimed to build an equal access and classless urban space, providing a guiding principle for Chinese urban development. With the ability to exercise its political power, the communist government made radical attempts to reduce and eliminate rural-urban differences. While over 40 satellite towns were proposed for the outer suburbs in the national capital, the central city was also decentralized into a number of "dispersed clusters". Urban planning was used as a tool to create symbols of the communist party and its ideology, as exemplified by Tiananmen Square.

The central planning system provided a means for the government to control and manage the national economy. It facilitated the transformation of Beijing from a "consumption city" to a "production city", and special emphasis was placed on the development of heavy industry in the city. As all construction projects and investments

were approved by the national economic plan, urban planning aimed to help achieve the goal set by the economic plan. Therefore, urban structure in socialist Beijing represented the spatial manifestation of the national economic plans.

Social controls were achieved mainly through the household registration and work-unit systems. The work-unit controlled all its employees through administrative management and the provision of various kinds of social amenities. It was a walled compound of production, residence and social activities, integrating employees' work, social and neighbourhood networks within a self-sufficient community. This system not only led to a work-unit ownership of retail and other services, but also caused chaotic land-use and urban expansion in Beijing.

Urban planning and its implementation in socialist Beijing demonstrated the influences of the political ideology, economic planning and social controls. Soviet planning concepts and standards were adopted in the city's planning in the 1950s, but their influence remained strong in the following two decades. While the urban expansion process was a sign of the change in the planned economy, the spatial pattern of the development reflected the sprawling work-units in the urban area.

Under the centrally planned economy, retailing was largely neglected and placed under state and collective ownership. Adherence to socialist doctrine seriously damaged the retail sector. The number of retail establishments and retail employment in Beijing dropped significantly during the socialist period. Urban retailing was administrated by the central ministries that exercised vertical control from the municipality down to enterprise units. Guided by the planning principles, retail

facilities were organized into a hierarchical network of retail centres. The retail establishments in socialist Chinese cities neither competed against nor co-operated with each other.

Subject to demand-thresholds of consumer goods and shopping behaviour, retail services in socialist Beijing were organized into four levels: the city, the district, the residential district and the neighbourhood. Retail facilities at the two lower levels were located close to residential areas. A survey of retail functions revealed that the bipolar structure before socialism had been replaced by a tripartite-centre pattern in Beijing. While the oldest retail centre Qianmen remained prosperous, Wangfujing became the largest retail centre in the city during the period. As a result of the expansion of the city towards the west, Xidan quickly surpassed other commercial nodes and reached the same level of prominence as the other two major centres. Most of the secondary-level retail centres were located within the old city, but four newly developed retail centres emerged in the suburban areas.

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#### Notes:

1. The *three major distinctions (sanda chabie)* refer to the differences between city and the countryside, industry and agriculture, and physical and mental labour. It was first proposed by Mao Zedong in his "On the Ten Major Relations" in 1957.
2. The "dispersed clusters (*jensan jituan*)" indicate that the city plan of September 1958 designated ten major suburban localities around the central city for urban development in the future. These places included Jiuxianqiao, Beiyuan, Qinghe, Haidian, Shijingshan, Fengtai, Nanyuan, Fatou, and Dingfuzhuang, each of which was separated by green space. This plan was a radical attempt to reduce "the three major differences". See Beijing Jianshe Shishu Bianweihui, (The Editorial Committee of Beijing Urban Construction History, abbreviated as Beijing ECUCH), 1987, *Jianguo yilai de chengshi jianshe ziliao --Chengshi guihua (Beijing Urban Construction History Since 1949 - Volume One: Urban Planning)*, pp. 39-45.
3. As the national urban construction principle, "the three services" was a little different from that applied to Beijing. The first national urban planning conference, which was held in 1954, proposed "to serve proletarian politics, to serve socialist production, and to serve the labouring masses. See Xie and Costa. 1991. *Urban Planning in China. Cities*.
4. The Ten Great Architecture Projects (*shida jianzhu*) refer to the ten major construction projects built in the late 1950s to celebrate the ten-year anniversary of the communist reign. They include the People's

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Great Hall, the Museum of Chinese History and Revolution, the Chinese People's Military Museum, China Agricultural Exhibition, the Cultural Palace of Nationalities, the Hotel of Nationalities, the Workers' Gymnasium, the Overseas Chinese Building, Diaoyutai National Guests' Hotel, and the Beijing Railway Station.

5. Translated from Beijing ECUCH, 1987, *Beijing Urban Construction History Since 1949 - Volume One: Urban Planning*, p.110.

6. An extra-large city in China is defined as one whose non-agricultural population in the urban districts is over one million, whereas a large city is one with a population between 500,000 and one million.

7. Peking University was founded in 1898 in downtown Beijing. In 1952, when some of its colleges and departments became independent institutes, it merged with the Yanjing University (Harvard-Yenching Institute) and was relocated to the Yanjing campus in Zhongguancun, the core of the higher education and research area.

8. "The eight major institutes" refer to those established in the early 1950s in the city's northwestern higher education and research area. They include the Institutes of Medicine, Geology, Forestry, Aviation Industry, Steel and Iron Industry, Petroleum Industry, Mining Industry, Agricultural Machinery Industry. These former colleges or departments of Peking University or Tsinghua University became independent walled education compounds and were located along the Xueyuan (the Institute) Road. See Beijing ECUCH, 1987. *Beijing Urban Construction History Since 1949 - Volume One: Urban Planning*, pp. 26.

9. These principles were briefly listed in several textbooks on urban planning, while further explanations were inferred from the principles and the planning practices. See: Tongji University *et al* (eds.), 1980, *Urban Planning Principles (Chengshi Guihua Yuanli)*. Beijing: China Construction Industry Press.

10. The Editorial Committee of Beijing Urban Construction History (1992, pp. 48-50) only mentioned the first three levels, but the neighbourhood as the lowest level actually existed both during the socialist period and remains today.

11. The term *retail centre* is generally used in urban planning, but it has never been exactly defined. Unlike the planned shopping centres /malls in North America, most of the so-called retail centres have the linear pattern of commercial strip because stores are distributed along one or more streets. Examples are Wangfujing and Xidan retail centres. The former actually included retail activities along Wangfujing Street, and the latter the stores along North Xidan Street. Thus, problems would arise because of the lack of a clear and uniform definition. This will be discussed in the Chapter 7 of this dissertation.



## Chapter 6 Urban Development in Beijing in the Era of Reform

*"A good cat is one that is able to catch mice, no matter what its colour, whether black or white"*

*"Only development is the hard theory"*

— Deng Xiaoping

The reforms implemented by China are the most important event in the country's development in the last two decades of the twentieth century (de Bettignies, 1996:xvi). The initiation of the reforms ended the pursuit of doctrinal Marxist socialism and marked the beginning of a new era. Even though China is still under the authoritarian rule of the CCP, the government has placed heavy emphasis on market-oriented economic development. Since the beginning of the reforms, the centrally planned economic system has been changing to a partly market-driven one more interdependent with the world economy. These changes have already had important socio-economic consequences that are shaping the pattern of urban development and impacting upon every aspect of urban life in China. Therefore, the first part of this chapter will review the purpose of the reforms and their impact on urban development. The following parts will examine the spatial population process, industry relocation, and agglomeration of business activity under reform. These analyses will help to understand the effects of the new forces in shaping the Chinese cities and to develop a Chinese urban structure models based on these spatial processes.

## **6.1 The Reforms, Open-door Policy and Urban Development**

### **6.1.1 The Reforms<sup>1</sup>: Purpose, Process and System**

The reforms were first initiated in December 1978 when the Third Plenary Session of the Eleventh Central Committee of the CCP declared its intention to implement economic reforms and to open China to the outside world. It proposed to reduce the dominance of central planning, and to permit, to a certain extent, a market-driven economy. While the state continues to control the key economic sectors, foreign investments have been allowed in designated areas, and China's involvement in the world market has also increased. Under the new system, the private economy that was considered as capitalistic during the socialist period is now allowed to coexist with those of the state and collective ownership.

Economic reforms were first started in rural areas in 1979. With the introduction of a production-contract household responsibility system that replaced the communes, each household is to bear sole responsibility for agricultural production on its leased land. This policy significantly stimulated the farmers' enthusiasm because it provided higher returns for their work. Productivity in the countryside increased tremendously and thus released a large amount of surplus labour force from agriculture. The reforms were introduced into cities in 1984, with the hope of replicating the successful rural reform in urban centres. This involved an expansion of the autonomy of enterprises, relaxation of price controls, replacement of state investment with credit finance for industrial development, levying of taxes and fees for use of land, and the introduction of markets for a few selected consumer goods, services, labour, and technology. Since

the urban reforms were primarily aimed at enterprises, they were much more complicated than reforms in the rural areas. In terms of spatial evolution, most of the reforms and open-door policies were first initiated at selected experimental sites in coastal open cities<sup>2</sup>. It was intended that the reforms would diffuse to the interior, the north, and other regions (Sun, 1997:39, Table 6-1). During the 1980s when the reforms were searching for direction by following the strategy of "crossing the river by groping for stones (*mozhe shitou guohe*)", Beijing was not among the pilot open cities as a cautious approach was practised in the nation's political centre. Since the early 1990s, the significance of Beijing in national and world affairs has brought it to the forefront in the reforms. For example, Beijing is now among the pilot cities opened to foreign banks, insurance, and retail companies.

The interwoven reform policies impact one another in practice, which means all the reform processes can be defined as a system (Table 6-1). The rural reforms have released a large amount of surplus labour, and many who seek work in cities become *temporary urban residents*. The proliferation of private and foreign enterprises makes it necessary for businesses and services to recruit employees from outside the state system. The emergence of labour markets in cities has rapidly eroded the household system that effectively controlled the growth of urban population before implementation of the reforms.

Table 6-1. The Process of China's Reforms and Urban Development

Reform Types	Policy Highlights	1978 to 1984	1985 to 1991	1992 to present
Rural Reform	Introduction of production contract responsibility system (1978); Commodity production (1982); Township & village enterprises; Shift of surplus farm labour to non-agricultural sectors (1984)	• - •••	♦ ♦ ♦	♦ ♦ ♦
Population Policy	Return of the "rusticators" (1980); Relaxation of household registration system (1984); Introduction of labour market (1985)	°	•	••• - ♦ ♦ ♦
Economic system	Introducing market price (1984); Land and housing markets (1986); Promoting the tertiary industries, opening retailing, banking and insurance to foreign investment (1992)	°	• - •••	♦ ♦ ♦
Administrative system	County under the jurisdiction of city government (1984); Separation of administration from business operation (1985); Enhancement of city's financial power.	°	• - •••	♦ ♦ ♦

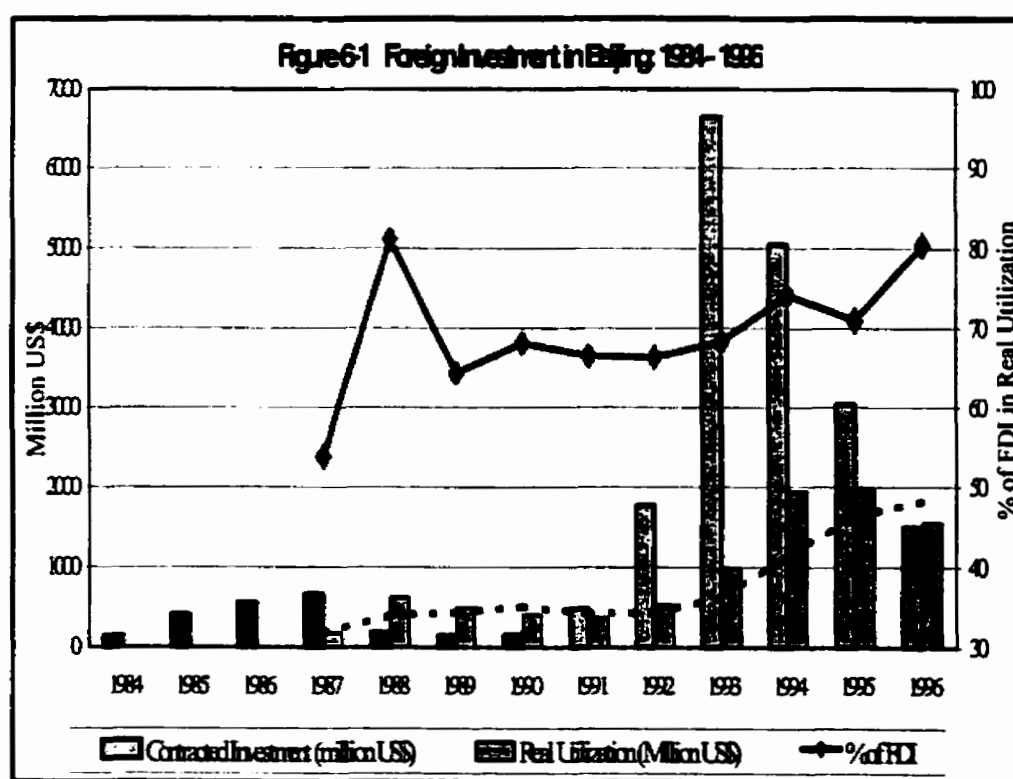
Notes: In the table, ° represents the reform in the initial stage and • in the official experimental stage. The symbol ••• indicates that the reform was partly extended, while ♦ ♦ ♦ indicates that it was fully implemented.

Source: Compiled from Fuyu Li (ed.), 1993. *The New Guidebook of China's Investment Environment*. China Today Press, Beijing.

### 6.1.2 The Economic Reforms and the Open-door Policy

*The Open-door Policy:* The opening of China to the world has signified the nation's participation in the global economy. Its share of imports and exports in the GDP increased from 9% in 1978 to 40.5% in 1995. China also ranked second only to the USA in absorbing foreign investment during the 1990s<sup>3</sup>. Implementation of the open-door policy has extended gradually from the coastal area to the interior and from the south to the north. When the reforms were first introduced in the early 1980s, the

government established four Special Economic Zones and opened 14 coastal cities (see Note 2). Since the late 1980s, cities along the Yangtze River, in the border regions, and most provincial capitals have been permitted to establish Economic and Technological Development Zones (*jingji jishu kaifaqu*) and to adopt flexible policies. The scope of the economic sectors opened to foreign investors has also gradually broadened, from manufacturing to the service sector. In particular, since 1992 the opening of the service sector, including banking, insurance, retailing and consulting, have been bringing about extensive changes in the urban development of Beijing and other major cities in China.



Source: *Beijing Statistical Yearbook 1997*, p. 516.

The first joint venture in Beijing, the Jianguo Hotel, was established in 1979 by the municipal Tourist Bureau and a Hong Kong-based company (Liu, 1993:54). However, the amount of foreign investment and numbers of such enterprises remained small during the early 1980s. There were only 12 such small joint ventures established between 1979 and 1983, and therefore, Foreign Direct Investment (FDI) did not appear in the city's statistics until 1984 (Beijing Statistical Yearbook 1997:516). On the basis of the statistics, the accumulated amount of the contracted foreign investment between 1986 and 1990 was only US\$1.71 billion, but between 1991 and 1995 it reached US\$17.0 billion. The share of Beijing's contracted foreign investment in the total of the country also rose from 2.7% in the first period to 4.2% in the second period. By 1996 there were 9,797 registered foreign-invested enterprises in Beijing, with a total investment of US\$29.93 billion. The number of enterprises and the amount of investment in the national capital accounted for 4.1% and 4.2%, respectively, of the country. Foreign investment has been made in almost every economic sector in the city. It is particularly significant that the number of multinational corporations has grown rapidly in Beijing over the past decade. Owing to active foreign investment in real estate development, new commercial complexes proliferated, leading to changes in the cityscape and the urban structure in Beijing.

*Land Market and Housing Commercialization:* The introduction of land market<sup>4</sup> and housing commercialization is the most important economic reform in terms of its impact on urban development. According to Karl Marx, wealth is created by labour. Land under socialism was not a commodity, and it therefore had no value or price.

Guided by this theory, urban development was not concerned with effective use of land. Economic reforms introduced land as a production factor into the market. Thus, compensation would be paid for land acquisition or expropriation, fees would be charged for leasing of the land, and rent charged for use of land.

The Beijing municipal government twice classified the land in the central part of its urban planning area. In 1985 all land was divided into five grades, with higher grade at the core and lower grade at the periphery. The 1st grade parcels of land covered several urban sections: the western and eastern Chang'an Boulevard, Wangfujing, Qianmen and Dashila, Xidan, and Di'anmenwai. The 2nd grade of land included the remainder of the old city and a few areas outside the Second Circle Road. Land of the 3rd and 4th grades occupied areas lying between the Second and Third and between the Third and Fourth Circle Roads, respectively. The area lying outside the Fourth Circle Road and land in all county towns were classified as 5th grade. In 1993, the municipal government further categorized the planned area into ten grades (Liu, 1993:102-110). Land lots in the urban districts as well as Haidian and Chaoyang were ranked from 1st to 6th, and Fengtai and Shijingshan from 3<sup>rd</sup> to 8<sup>th</sup>. Outer suburban district and counties had only 6<sup>th</sup> to 10<sup>th</sup> grades of land. Since land leasing fees are based on this land grading system, they have significant impacts upon the land-use patterns in the city.

### **6.1.3 Reforms of the Administrative System**

The reform of the administrative system, as a part of political reform, refers to the changes in administrative function and the redistribution of political power within

the CCP. With respect to urban development, only the issues of downward transfer of political power and separation of administration from business operations will be given special attention in this study.

Under a centrally planned system, the concentration of political power naturally entailed a concentration of economic power. Equally, the economic control that the central government exerted over the lower levels of administration was one of its main tools in ensuring political control. The downward transfer of administrative power was first undertaken in 1984, which transferred decision making on economic affairs to the lower levels. This decentralization of power was not only intended to improve the central government's position as "scrambling repeatedly to put out fires" (Breslin, 1996:5), but also to find new development approaches according to the local conditions existing in different regions. In practice, local governments obtained the authority for securing investment and gained financial strength through sharing revenue incomes with the central government. The former has led to diversification of investment sources that has direct impact on urban development (Yeh and Wu, 1995). For example, the share of the central government in the fixed capital investment in Beijing was 80% during the First Five-year Plan and about 70% in 1960s and 1970s, but it declined to 54.5% in the first five years of the 1990s. Prior to this reform, most investment came from the state. However, the share of state investment decreased from 39.1% in 1985, to 29.4% between 1986 and 1990, and further to 14.7% between 1991 and 1995 (*Beijing Statistical Yearbook 1997*:497). Meanwhile, the share of funds raised by local governments and enterprises and the share of foreign investment grew



quickly. Under this circumstance, many local economic activities did not always coincide with the requirements in state planning. With the newly acquired financial resources, the local governments and enterprises endeavoured to pursue more economic gains in urban development.

Separation of administration from business operations has reduced the interference of bureaucracy and increased enterprises' authority in decision-making. Under this reform, even operations of state-owned enterprises must conform to economic rules. These enterprises also have to compete with others and pursue increasing profits. Thus, the behaviour of enterprises tends to be more economic than political or social, which is more similar to those in the market system. However, incomplete competitions in the "quasi-market" economy (World Bank, 1993) have resulted in an increasingly diversified income distribution. The average wages in the financial and real estate sectors were more than twice that of the lowest ones in 1996 (*Beijing Statistical Yearbook 1997:87*), compared to 1.39:1, the ratio of the average wages between the highest and the lowest sectors in 1985 (*Beijing Social and Economic Statistical Yearbook 1986:478 & 488*). Along with more power in decision-making being granted to enterprises, income disparities among individual enterprises become much larger. Given the existing social organisation, the increasingly widened income gaps have led to work-unit based urban social areas.

#### **6.1.4 Transformation of the Social System and Its Influences**

Population controls through the household registration system have to be relaxed when other reform policies are carried out. On the one hand, foreign and private

enterprises, which offer higher wages, tend to create competitive labour markets and to increase population mobility which lead to modification of the official population control measures. On the other hand, the emergence of a large number of surplus rural labour due to rural reform also challenges the household registration system. Pushed and pulled by forces from both the demand and supply sides, the central government carried out a reform policy in 1984. The state would allow agricultural population to live in towns to obtain a "blue-chop" household registration<sup>5</sup> if they could provide their own food. Meanwhile, the availability of foodstuff in the free market essentially eroded the system. With a practical philosophy toward reform, an overall dilution of political examination added positively to the relaxation of household registration control. Since the early 1990s, the Beijing municipal government has allowed individuals and enterprises to purchase urban households. Even though the dual system has resulted in unfairness, it has begun to acknowledge the influence of market forces.

A series of reform policies targeted at enterprises has exerted profound effects on the work-unit system. With the implementation of housing commercialisation, medical insurance, and contracted employment, work-units have been psychologically and economically less reliable. The past glorious status of being employed by a state work unit has faded. On the contrary, working in foreign and private enterprises has become more prevalent. Although the majority of the people in the city still work in state- or collective-owned work-units, employment-based organisations have been diversified. The increasing disparities of income among enterprises, particularly

between those of state-owned and those of foreign-owned, are leading to distinct income stratification. While wealthy households could purchase luxury homes and rich enterprises could buy apartments for their employees, the social divisions are reshaping the equalitarian work-unit space, and resulting in the emergence of new social areas in the city.

## **6.2 Urban Expansion in the Midst of Reform**

Urban development in the era of reform differs in both process and pattern from those earlier. In order to meet the needs of the transformation associated with the reforms, urban planning has placed a stronger focus on commercial developments in the city. For example, the 1991 master plan of Beijing proposed a scheme for the CBD, which was mentioned for the first time since 1949. Implementation of urban planning and changes in the social and economic system have been transforming residential development. Meanwhile, with the improvement of transport networks and road systems, various development zones have been established in the city to meet its commercial needs, altering the structure of Beijing.

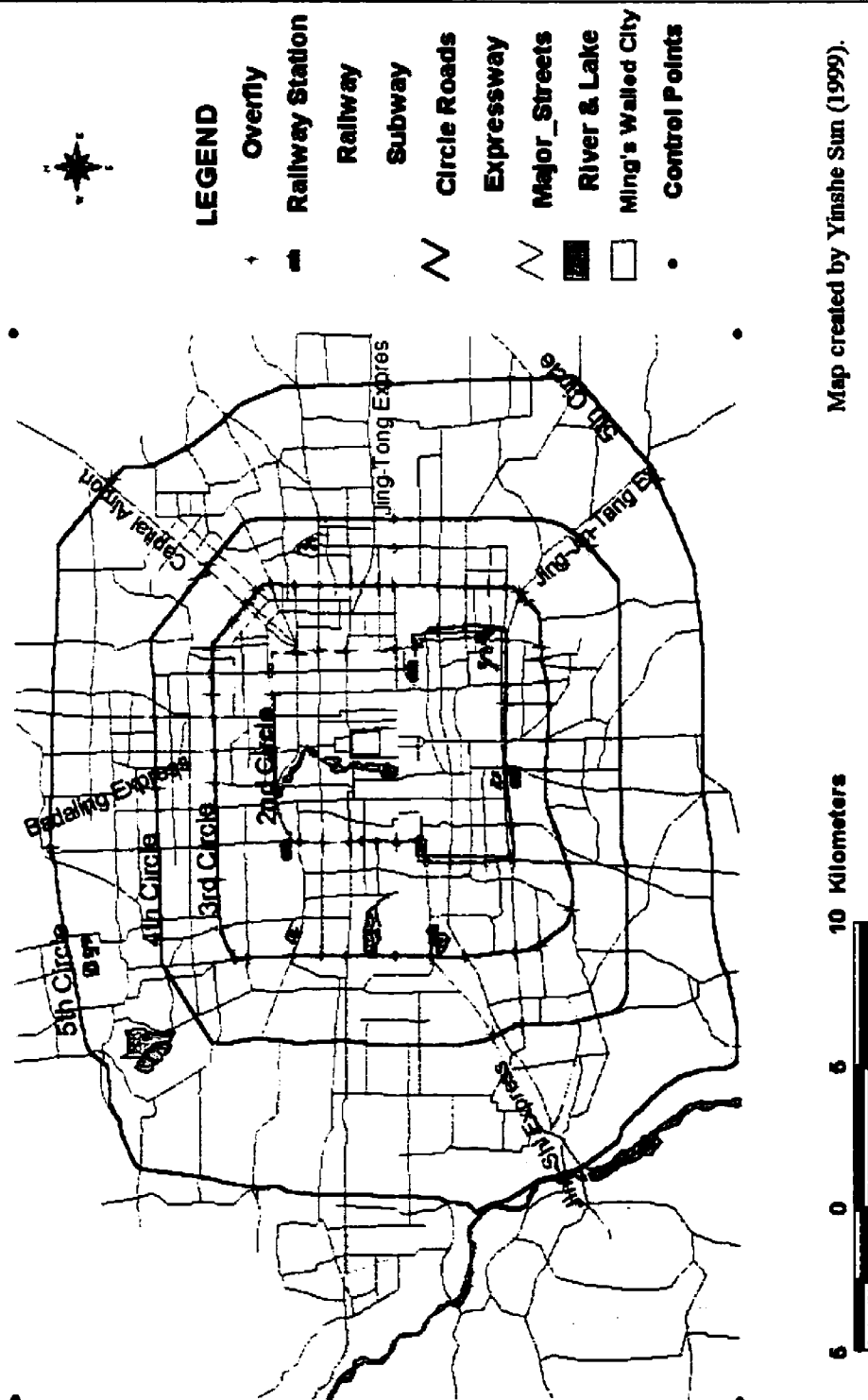
### **6.2.1 Development of Transport Networks and Urban Expansion**

The major roads in the formerly walled Beijing displayed a north-south or east-west running grid pattern, with the exception of the Oblique Street which run northwest from the Drum Tower. Socialist urban planning extended the original road pattern. Before 1980, the main and secondary roads still retained their original grid pattern even though the Second Circle Road<sup>6</sup> around the inner city had been constructed. Soon after implementation of the economic reforms, serious traffic

problems began to affect the city's economic activities and the residents' daily life. Thus, the city was urged to improve its transportation system. The Third Circle Road was completed in 1981, which marked the beginning of the construction of a circle road system (Qian, 1981). According to the 1982 master plan, the main road network in Beijing would consist of a number of circular roads intersected by several major radial routes (Pan, *etc*, 1983). The Fourth and Fifth Circle Roads were partly completed during the late 1980s, and the former, 65 km in length, was finally completed in 1996. The Second Circle Road was extended to 23.7 km in 1993, and it completely surrounds the old city. Overpasses were constructed at the intersections between those circle roads and major radial routes. In total, about 80 overpasses have been erected at the second through fourth circle roads.

Transport facilities in Beijing remain inadequate despite a rapid increase in the number of vehicles in the past two decades. In 1981 there were 103,826 passenger vehicles in the city, with an average of only 11.5 vehicles per thousand residents. These figures increased to 614,021 or 48.8 per thousand residents in 1996. The increase in the number of vehicles has been faster than the length of roads constructed. Consequently, as in many other Third World cities, an acute shortage of transport facilities has been one of the most crucial problems in Beijing. A study in 1988 revealed that public transport and bicycles were almost equally important in Beijing. Among all types of trips made in the city, 45.9% of trips were by bus, 4.7% by subway, 0.9% by taxi, and 3.8% by other vehicles. Bicycle use accounted for 44.9% of all trips (Quan, 1990).

**Figure 6-2 The Transport Network in Beijing**



Both the road network and the modes of transportation in Beijing have produced several consequences in the city. First, the insufficient transport facilities encourage people to stay within the central city. This helps to explain the failure in controlling population growth in the central city and in promoting suburban development (Sun, 1994). Second, the circle roads provide an approximately isotropic accessibility from the centre of the city, promoting urban expansion of the central city in all directions. Third, the radial routes, particular the expressways and the westward-extending subway, have caused belt-like or sector expansion of the built-up area. Unlike the former decade, the 1990s have witnessed urban sprawl along the Beijing-Tianjin Expressway and the Airport Expressway, where development zones grew most rapidly and the construction of large residential projects was undertaken. This has created a new growth pattern, combining successive ring-like outward expansion with sector growth in the most recent period of urban development.

#### **6.2.2 Integrated Residential Development and the Real Estate Market**

Since 1979, residential development has been the major factor for urban expansion in Beijing. The increase of residential floor space has been over 5 million sq. meters per annum, an equivalent of between 50-60% of the total construction. This rapid growth of residential space was to compensate for the neglect of housing needs in the past decades and to meet the rapidly growing demand. Many other changes in the development process also occurred. First, since 1980, urban construction and development companies at both municipal and district levels have largely taken over the responsibility of residential construction previously undertaken by individual work

units. Except for the powerful units including some ministries, military institutes, and subordinates of the central government, most work-units are encouraged to contribute funds rather than become directly involved in residential development. Second, since initiation of integrated development, the size of residential districts has been much larger than those built in the previous decades (Table 6-2). Total construction areas in the new residential districts of Fangzhuang, Wuluju, Huiyuan, Xiluoyuan, and Liulitun are all over 1 million sq.m at each location. Every one is actually a small city, accommodating 500,000 to 800,000 inhabitants. The Wangjing Residential District which is currently under construction is located at the northeast of the city. It contains 492 *ha* of land and will be occupied by over 100,000 residents. Third, compared to the practice of "sticking in pins wherever there are rooms (*jianfeng chazhen*)" in the 1960s and 1970s, most of the new residential districts are located at designated areas outside the Third Circle Road, some even beyond the Fourth Circle Road. Fourth, urban land has been more intensively used, as reflected by the average number of stories of buildings or the Floor Area Ratio (FAR<sup>7</sup>). Construction of high-rise residential housing has become prevalent due to its efficiency in land-use and progress in construction technology. Typically, the number of floors for residential housing increased from three levels in the 1950s, to four or five in the 1960s, to six in the 1970s, and to over ten or even twenty stories at present (Table 6-2). High rises first emerged in the early 1970s and they began to flourish in the 1980s. The share of floor space of the residential buildings exceeding 10 stories was 1.02% of the total between 1970 and 1975, 8.82% between 1976 and 1980, 15.09% between 1981 and 1985, and

41.78% between 1986 and 1990. In Fanzhuang Residential District, high-rises account for 89.2% (Beijing ECUCH, 1992:260-88).

Table 6-2 Planning for Residential Districts in Beijing: 1950s-1980s

Residential District /Small District	Area (ha)	Population	Average Levels	Population Density (p/ha)	Year of Planning
Xizhaosi	15.3	5,087	3.6	332	1957
Hufanglu	9.2	4,914	3.9	536	1958
Cuiyangliu	20.9	7,320	4.2	351	1962
Xinyuanli	12.6	6,027	5.0	479	1966
Tiantannan	10.5	7,000	4.0	666	1973
Qingnianhu	11.6	13,000	6.6	1146	1975
Tuanjieshu (I)	24.7	21,250	6.5	862	1976
Tuanjieshu (II)	15.1	12,610	6.9	833	1977
Liujia Yao	23.7	19,360	7.0	819	1978
Zuojiazhuang	43.9	32,000	8.2	729	1979
Fangzhuang	150.1	82,549	N/A	715	1984
Xiluoyuan	43.2	31,093	N/A	805	1985
Liulitun	92.8	54,598	N/A	668	1987

Source: Compiled from The Beijing ECUCH, 1992. *Historical Material of Beijing Urban Construction Since 1949 - Housing Construction II* pp. 257-344.

Concurrent with peripheral expansion, urban redevelopment was undertaken in the old city. This process is certainly propelled by the need to upgrade existing living conditions for the residents there. According to the 1981 planning data, about 95% of the dilapidated housing in the 29 investigated areas in the city were located in the inner urban districts (Lu, 1991:16). A survey in 1985 showed that the urban districts had higher percentages of households without sanitary amenities, kitchen, and gas supply. They also had a higher proportion of low-level housing than the suburban districts (Beijing Social and Economic Statistical Yearbook 1986:564-7). While the Beijing



Housing Management Bureau's investigation defined 6.1 million sq.m of dilapidated housing that were the fourth or fifth grade houses, over three-quarters of it were found in the old city (Lu, 1991:16). In view of this, upgrading of the infrastructure and improving the living conditions in the old city have become quite urgent (Lu, 1993; He, 1993). Nevertheless, recognition of the significant economic value of old city has promoted its redevelopment. In fact, major changes in land-use in the old city have occurred in order to accommodate both new commercial and infrastructure development (Beijing ECUCH, 1992:450). Those measures and changes are essential for lowering the population density, improving living conditions, and stimulating investment in the old city.

Increasing FAR or the number of building levels would be in conflict with the planning effort to preserve the low skyline of the old city. In order to avoid proliferation of high-rise structures in the city, the Capital Planning and Construction Commission (*Shoudu Guihua Jianshe Weiyuanhui*) set building height limits for different zones in the city in 1985. On the one hand, it restricted building heights in the central part of the city, but allowed high-rises to sprout in the periphery, which produced a bowl-shaped profile for the cityscape (Gaubatz, 1995; Li, 1996). On the other hand, redevelopment under the influence of the market has resulted in some rich households and wealthy work-units remaining in the old city (Lu, 1993). This spatial regrouping of urban residents by their incomes or the wealth of their work-units contrasts sharply with the socialist pursuit of equality and classlessness during the pre-reform era.

### **6.2.3 Establishment of Development Zones and Urban Expansion**

As in coastal open cities in China, development zones have been established in Beijing where foreign companies or domestic industries may be set up. By 1996 there were 31 development zones established by the municipal or district governments in the national capital. The Beijing Economic and Technological Development Area (BETDA) and the Beijing Experimental Zone for the Development of New Technological Industries (BEZDNTI), which were approved by the State Council, were the largest. The 31 development zones, with a total planned area of 204 sq. km, have expropriated 37 sq. km of land for their first phase of development. About half of the area involved reconstruction of the built-up area in the central city or towns in the municipality, and the other half was entirely new development. In addition, there were over 100 tracts of land approved by local governments to be reserved for industrial uses (Fan, 1997:13).

As shown in Table 6-3, most of those development zones in Beijing focus on industry. Many of them emphasized the development of high-tech industries, and they offered similar preferential policies for investors. For example, they provided enterprise-tax exemption for investors. Thus, competition among them has resulted in scattered investment. While the total contracted investment in the 31 zones reached 52 billion Yuan, only twelve of them received capital over 1 billion Yuan each in 1996. Only the Wangfujing Development and Construction, which contained huge real estate projects such as the Oriental Square (*Dongfang Guangchang*), received contracted investment of over 10 billion Yuan (Beijing Statistical Yearbook 1997:520).

Table 6- 3. Classification of Development Zones in Beijing

Type of DZs	The Central City (9)	Outer Region (22)
1. Real Estate (1)	Wangfujing Development and Construction	
2. High-tech (7)	Beijing Experimental Zone for the Development of New Technology Industries (BEZDNTI) (100/-); Shangdi Information Industry Base (1.8/1.8); Fengtai High-tech Branch (2.9/1.25); Badachu High-tech Branch (1/1)	Changping High-tech Branch (3.6/0.7); Changping Sci-tech Enterprise Zone; Fengxiang Sci-tech Zone (0.8/0.55)
3. Industrial (18)	Beijing Economic and Technological Development Area (15/3), Wangjing Industrial Zone (3.3/1), Xisanqi New Construction Material Town (5.37/0.87),	Huangcun (1.5/0.75), Niantan (2/0.33), Shilong (2.5/0.4), Yanshan Dongliushui (0.39/0.39), Liangxiang (2.41/0.63), Zhangjiawan (1.84/0.64), Yongle (10/4.6), Tianzhu Airport Industrial (3/1.96), Linhe (5.13/0.66), Jixiang (4.6/-), Yanxi (6.5/2), China Township Enterprise Town (2.3/0.59), Binghe (2.47/0.6), Miyun (1.88/0.59), Nancai yuan (3.04/0.64),
4. Tourist-cottage (2)	Xinglong Cottage (0.1/0.1)	Chaobai River Dragon World Tourist (4.9/0.6)
5. Comprehensive (2)		Huairou Enterprise (1.7/0.6), Badaling (21/4.9)
6. Agricultural (1)		Huairou Agricultural Experiment (1.4/0.4)

Note: Figures in the bracket indicate the total planned area and that for the first phase of development, and both are in sq. km.

Source: 1. *Beijing Statistical Yearbook 1997*, pp. 518-21.

2. *Directory of Development Zones in Beijing* (1997).

The unchecked spread of various development zones has been the result of the decentralization of decision-making in the current administrative hierarchy. Influenced by the national trend of "overheated" real estate development, governments at different levels tried to increase their local revenue through land development within their

administrative regions. Land development itself should be a market-driven process, but the market is immature and authorities of different levels act as suppliers. Therefore, development zones become the products of both the quasi-market and the bureaucratic administration. In reality, local government-sponsored industrial tracts have been developed chaotically. With excessive land development, urban sprawl is inevitable. During the first half of the 1980s, 23.3 sq. km of land were designated for urban uses, which was even 3 sq. km more than the total of the 1970s (World Bank, 1993:53). However, the early 1990s recorded a more serious urban sprawl than had occurred in the 1950s. The amount of land used for construction in the city was 35.7 sq. km in 1993, 32.3 sq. km in 1994, and 25.8 sq. km in 1995, of which industrial use on the average accounted for 39% of the total. Within the urban and inner suburban districts alone, the annual average amount of construction land between 1993 and 1996 was 9.25 sq. km (Beijing Statistical Yearbook 1996:520; 1997:384). The total built-up space during the first half of the 1990s was more than that of the entire First Five-year Plan period (1953-57). It should be noted that the recent urban expansion took place under a decentralized power structure and adopted special functional zones, while urban sprawl of the 1950s occurred through the central planning and resulted from the spread of walled work-units.

## **6.3 Changing Population Patterns**

### **6.3.1 Population Changes at the District Level**

As is common in many urban models, population is the most important indicator reflecting changes in urban structure. China's population statistics based on household

registration information provides annual data on population and migration status. However, there may be inaccuracies as, in some cases, differences exist between the location of registration and that of residence. For example, some people work and live in satellite towns, but their household registrations still remain in the central city. China also has had four population censuses since the early 1950s. In particular, the third and fourth censuses, surveyed in 1982 and 1990, respectively, provide the most recent detailed population data and are comparable. While the population statistics provide a series of data<sup>8</sup>, the census data are comparatively more accurate in terms of population distribution. Hence the latter will be applied in the analysis and the former can be used for comparison, whenever necessary.

Using both statistical and census data, measurement of population changes among urban districts, inner suburbs and outer suburbs show some significant differences (Table 6-4). Both data sources show that the inner suburban districts had the most rapid population increases, whereas the outer suburban districts and counties had greater population growth rates than the urban districts. However, only the census data revealed a trend of depopulation in the urban districts during the 1980s. There are two major reasons for the inadequacy of the population statistics. First, unlike the censuses, it includes only a small part of the temporary residents. Second, many residents live and work in the inner suburban districts, but they still hold their original household registration in the urban districts. Some people who have moved abroad or to other cities still retained their household registrations in the city. By contrast, the censuses recorded figures of population based on the actual location of residence.

Table 6-4. Changes of Population in Beijing between 1980 and 1996

	1964 — 1982 <sup>[1]</sup>		1982 — 1990 <sup>[1]</sup>		1980 — 1990 <sup>[2]</sup>		1990-1996 <sup>[2]</sup>
<b>Region</b>	<b>Change (%)</b>	<b>Annual Rate (%)</b>	<b>Change (%)</b>	<b>Annual Rate (%)</b>	<b>Change (%)</b>	<b>Annual Rate (%)</b>	<b>Annual Rate (%)</b>
<b>The City</b>	<b>21.50</b>	<b>1.09</b>	<b>17.20</b>	<b>2.00</b>	<b>16.54</b>	<b>1.54</b>	<b>0.72</b>
Dongcheng	4.80	0.26	-6.69	-0.90	2.23	0.22	-0.03
Xicheng	3.70	0.20	-1.10	-0.14	4.61	0.45	0.53
Chongwen	8.43	0.45	-5.14	-0.66	0.47	0.05	0.08
Xuanwu	-3.80	-0.21	-0.94	-0.12	6.80	0.66	-0.38
<b>Urban Districts</b>	<b>3.00</b>	<b>0.16</b>	<b>-3.38</b>	<b>-0.43</b>	<b>3.72</b>	<b>0.37</b>	<b>0.09</b>
Chaoyang	41.88	1.96	41.68	4.45	36.42	3.15	1.55
Fengtai	27.15	1.34	34.89	3.81	24.55	2.22	1.63
Shijingshan	32.75	1.58	31.39	3.47	30.32	2.68	1.56
Haidian	23.48	1.18	44.62	4.72	39.83	3.41	2.00
<b>Inner Suburbs</b>	<b>31.13</b>	<b>1.52</b>	<b>40.46</b>	<b>4.34</b>	<b>34.61</b>	<b>3.02</b>	<b>1.73</b>
<b>Outer Suburbs</b>	<b>27.64</b>	<b>1.36</b>	<b>13.12</b>	<b>1.55</b>	<b>11.93</b>	<b>1.13</b>	<b>0.21</b>

Note: [1] The rates between 1964 and 1982 and those between 1982 and 1990 are calculated from the census data; [2] The rates of 1980 -1990 and 1990-1996 are based on the statistical data.

Source: 1. *The Manually Compiled Data of the Fourth Population Census of Beijing City* (1991).

2. *Beijing Statistical Yearbook 1997* (p.59); *1996* (p.503); *1980* (p.12).

Comparison of the 1964 and 1982 census data shows that during the inter-census period the inner suburban districts had significantly greater rates in population increase than those of the urban districts, while the latter, by and large, increased very slowly. However, between 1982 and 1990, all the urban districts had negative population growth. The total decrease was 81,637 or 3.38% of the population in the urban districts. As a result, the population density in the urban districts declined from 27,763

to 26,826 persons per sq. km. In contrast, the average annual growth rate in the inner suburban districts was over 4%. The population in Haidian District increased by 45%, or a total of 445,000, during those eight years. The outer suburban districts and counties had a population increase with an annual average rate of 1.55%, which was lower than that of the municipality. Given the fact that the normal rate of natural population increase was about 0.4%, the negative population growth in the urban districts was obviously caused by out-migration, and the suburban districts gained population through in-migration.

Table 6-5. Increments of Population Change in Beijing: 1982 -1990

Region	Total Population		Population with HHD Registration	
	Change (1,000)	Average Annual Rate (%)	Increment (1,000)	Average Annual Rate (%)
<b>The City</b>	<b>1588</b>	<b>2.00</b>	<b>1120</b>	<b>-1.47</b>
Dongcheng	-46	-0.90	-62	-1.23
Xicheng	-8	-0.14	-34	-0.59
Chongwen	-23	-0.66	-31	-0.93
Xuanwu	-5	-0.12	-17	-0.39
<b>Urban Districts</b>	<b>-82</b>	<b>-0.43</b>	<b>-144</b>	<b>-0.77</b>
Chaoyang	426	4.45	342	3.50
Fengtai	204	3.82	143	3.74
Shijingshan	74	3.47	60	2.82
Haidian	445	4.72	332	2.95
<b>Inner Suburbs</b>	<b>1149</b>	<b>4.34</b>	<b>877</b>	<b>3.75</b>
<b>Outer Suburbs</b>	<b>521</b>	<b>1.55</b>	<b>387</b>	<b>1.18</b>

Source: *The Manually Compiled Data of the Fourth Population Census of Beijing City* (1991).

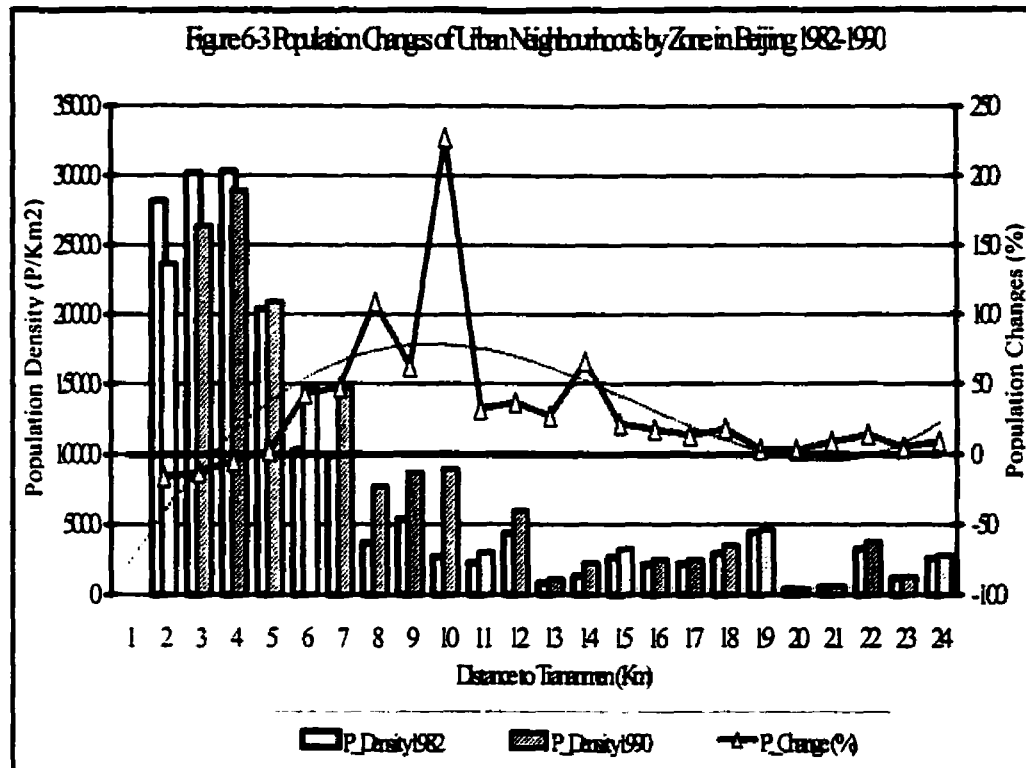
Since both the third and fourth population censuses recorded separately those with or without household registrations in the local district/county where they lived<sup>9</sup>, it

is possible to distinguish the increment with household registrations within the total change (Table 6-5). It can be seen from the table that in the urban districts the amount of depopulation with household registration was greater than total population change. Meanwhile, in the inner and outer suburban districts as well as counties, increases in population with household registration were smaller than their changes in total population. This indicates that the actual out-migration from the urban districts was much greater than that depicted by the total population, while the widespread increase in population without household registration in the local districts, to some extent, concealed depopulation in those districts.

### **6.3.2 Population Changes at the Urban Neighbourhood Level**

All the district units are too large in area to allow proper interpretation of spatial population changes, because there may be gross generalization and distortion. The urban neighbourhood, the lowest level of administration with available population data, provides an appropriate unit for spatial analysis. An analysis of population change was made on 75 selected urban neighbourhoods by zones according to their distances to the city centre (Sun, 1994). Using Tiananmen Square again as the centre of the city, the new analysis includes 124 urban neighbourhoods and townships that make up the study area. All urban neighbourhoods are divided into equal-distance zones according to the distance from their central office to the city centre. Spatial population change, as well as population density in 1982 and 1990, can then be investigated (Figure 6-3).





Source: Modified from the author. See Sun, Y. 1994. *City Planning Review* 16 (1): 20.

Since the Forbidden City and Tiananmen Square as well as other government buildings occupy the most central part of the city, the 0-1 km zone is considered as an institutional area. Both in 1982 and 1990, the population density outward from Tiananmen Square first climbed to peak at the 2-3 km and 3-4 km zones and then quickly declined with the increase in distance. In 1982, the average density at the peak zone reached over 30,000 persons per square kilometre, while it dropped to below 10,000 outside the 7 km zone. Between 1982 and 1990, the population in the area within the 5 km zone decreased, while the most densely populated neighbourhoods located in the 1-2 km and 2-3 km zones experienced remarkable population decline. However, during those eight years population in the area lying between 5 and 19 km

zones increased, while the zone between 9 and 10 km was the fastest growing one. The urban neighbourhoods with rapid population increase were all those lying near the fringe of the built-up area. Population increase beyond 19 km from the city centre is more moderate, indicating an insignificant relationship with distance. The whole curve of population change is unbalanced, showing an asymmetrical bell-shaped pattern. The population change curve is not smooth as a result of irregular urban sprawl in different directions. When those previously promoted "dispersed clusters"<sup>10</sup> become growth poles in current urban development, fluctuations of the population change rate may occur in the outer zones.

The outward movement of population in Beijing was caused essentially by two factors. First, the population density in Beijing's old city was extremely high. For example, Chunshu urban neighbourhood had a density of 59,000 persons per square kilometre in 1982. Therefore, the redevelopment in the old city aimed at reducing the crowded condition to improve the quality of the living environment. Second, driven by a profit-oriented motivation, there was a rapid transformation of urban functions and land-use. As much residential land was converted into commercial uses, a large number of people in the old city were forced to resettle in the outer zones.

### **6.3.3 Growth and Distribution of Temporary Residents**

The rapidly growing number of temporary urban residents is one of the most significant changes in Chinese cities in the recent two decades. It has drawn much attention from sociologists, urban planners and geographers, because it has become an important issue of the society and has greatly impacted on urban life. However, since

temporary urban residents, as a group, have not been properly defined, notable differences exist in previous surveys and statistics. For example, several terms have been employed, including "temporary residents" (Beijing Statistical Bureau), "floating population" (Zou, 1996; Sun & Zhang, 1991), "transient population" (Tu, 1991), "temporary migrants" (Goldstein and Guo, 1992). It should be pointed out that in some cases those uses are interchangeable, except for a few misuses<sup>11</sup>. The Beijing Statistical Bureau has used the term *temporary residents* (*zhanzhu renkou*) in its yearly statistics and also the terms *floating population* (*liudong renkou*) and *the population coming from outside* (*wailai renkou*) in its surveys. Despite definitional differences, two terms, temporary residents and floating population, have been widely used within the academic circles and by government statistical agencies. While both definitions refer to those people who do not have official household registrations in the city, they differ in the statistical scope. Temporary residents stay in the city for a period and usually participate in its daily activities. The term floating population, however, usually is used to include both temporary residents and transit population. Staying for only a brief time in the city and not seeking employment, those transients may be tourists or participants of meetings and conferences.

Among the temporary residents, two subtypes may be recognized: those who have registered as temporary residents and those who have not (Ma and Xiang, 1998). The Beijing Public Security Bureau requires that all temporary residents who stay in the city for three months or more should register. The number of registered temporary residents that have been recorded since 1949 is released annually in the Beijing

Statistical Yearbooks. Since 1982, the third and fourth national population censuses have categorized population according to their places of residence and their household registration. The fourth population census in 1990 defined three subtypes of temporary residents: (a) those who have lived in the city for over one year but have no household registrations; (b) those who have lived in the city for less than one year but have left the places of their household registration for over one year; and (c) those who live in the city but whose household registrations are undetermined<sup>12</sup>. In both Beijing and other cities in China, the first two subtypes account for the overwhelming majority of the temporary residents. The Beijing municipal government carried out three surveys on floating population in 1985, 1994 and 1997. Even though floating population was used in the former two and the population coming from outside was used in the 1997 survey, no significant difference in the statistical scope exists between the terms.

Among the three data sources, those of the three surveys provide the most detailed information and reliable numbers of floating population. The number of temporary residents, who, by definition, are those staying in the city for over one day, can be derived from the total floating population by subtracting the number of transients. The number of temporary residents recorded in the census data is not only reliable, but also comparable among districts and urban neighbourhoods. The number of registered temporary residents in the statistics forms a continuous series for comparison between different historic periods. However, it is not guaranteed that all those staying for more than three months registered in the local public security departments, which reduces the accuracy of the statistical data. Given the definitional difference in the length of

staying in the city, the number of temporary residents revealed by the statistical data is less than half of that revealed by survey data.

Table 6-6 Numbers of Temporary Residents in Beijing

Year	Registered Temporary Residents <sup>[1]</sup> (1,000)	Temporary Residents Revealed by Population Census <sup>[2]</sup> (1,000)	Floating Population (Temporary Residents*) by Surveys (1,000)
1950	94		
1960	75		
1970	131		
1980	186		
1982	180	169.9	
1985	312		663.5 (637.7) <sup>[3]</sup>
1988	796		1310 <sup>[4]</sup>
1990	713	602.1	
1994	1025		3295 (2877) <sup>[5]</sup>
1997	1312		2859 (2299) <sup>[6]</sup>

Note: \* The figures in brackets are the total floating populations minus those transients, which define the numbers of temporary residents staying in Beijing for over one day.

Source: 1. The Beijing Statistical Bureau, *Beijing Statistical Yearbook 1994*, p. 572; 1997, p. 58.

2. The State Statistical Bureau, 1990. *The Bulletin of the 1990 Population Census Data by the State Statistical Bureau of PRC (No.5)*. Also see the Beijing Statistical Bureau (ed.), 1991, *The Manually Compiled Data of the Fourth Population Census of Beijing City*.

3. The survey date was April 20, 1985. The data appeared in *Beijing Statistical Yearbook 1986*, p.305.

4. Sun, Hongming, 1990. The Population Size and its Development in Beijing. *Studies of Urban Sciences*, No. 1, pp. 52-57.

5. The survey was conducted on November 10, 1994, and the data appear in *Beijing Statistical Yearbook 1995*, p.626.

6. The survey was conducted on November 1, 1997, and the survey data were released by the Beijing Statistical Bureau in *The Survey of the Population Coming from Outside* (series reports: 1-12), June 1998.

The numbers of temporary residents in Beijing, revealed from the three types of data sources, are tabulated in Table 6-6. Aside from the differences, all three series of data show that the number of temporary residents in Beijing has been expanding significantly since the late 1970s. According to the surveys, the number of temporary

residents staying over one day in the city increased from 663,470 in 1985 to 2,299,416 in 1997. The rapid growth of this group of residents illustrates that the relaxation of population controls has increased population mobility.

Table 6-7 Distribution and Change in Temporary Residents in Beijing

Region	Temporary Residents (1990) <sup>[1]</sup>		Changes (1982-1990) <sup>[1]</sup>		Temporary Residents (1997) <sup>[2]</sup>	
	Number (1,000)	% in the Total Population	Number of Increase (1,000)	Average Annual Rate (%)	Number (1,000)	Ratio to the Permanent Residents (%)
<b>The City</b>	<b>602.13</b>	<b>5.57</b>	<b>432</b>	<b>17.17</b>	<b>2299.4</b>	<b>100.00</b>
Dongcheng	29.67	4.89	13	7.62	102.8	16.01
Xicheng	39.63	5.24	20	9.17	133.9	16.55
Chongwen	16.65	3.99	7	7.42	62.5	14.50
Xuanwu	21.43	3.85	10	7.86	69.1	12.14
<b>Urban Districts</b>	<b>107.38</b>	<b>4.60</b>	<b>50</b>	<b>8.19</b>	<b>368.4</b>	<b>15.06</b>
Chaoyang	97.86	6.76	78	22.12	537.2	37.65
Fengtai	70.83	8.98	60	26.56	314.8	40.46
Shijingshan	21.21	7.13	14	13.96	99.7	31.35
Haidian	114.39	7.93	96	21.40	493.4	33.08
<b>Inner Suburbs</b>	<b>304.29</b>	<b>7.65</b>	<b>248</b>	<b>21.93</b>	<b>1445.1</b>	<b>35.98</b>
<b>Outer Suburbs</b>	<b>190.46</b>	<b>4.23</b>	<b>134</b>	<b>18.07</b>	<b>485.9</b>	<b>11.06</b>

Source: 1. *The Manually Compiled Data of the Fourth Population Census of Beijing City* (1991).

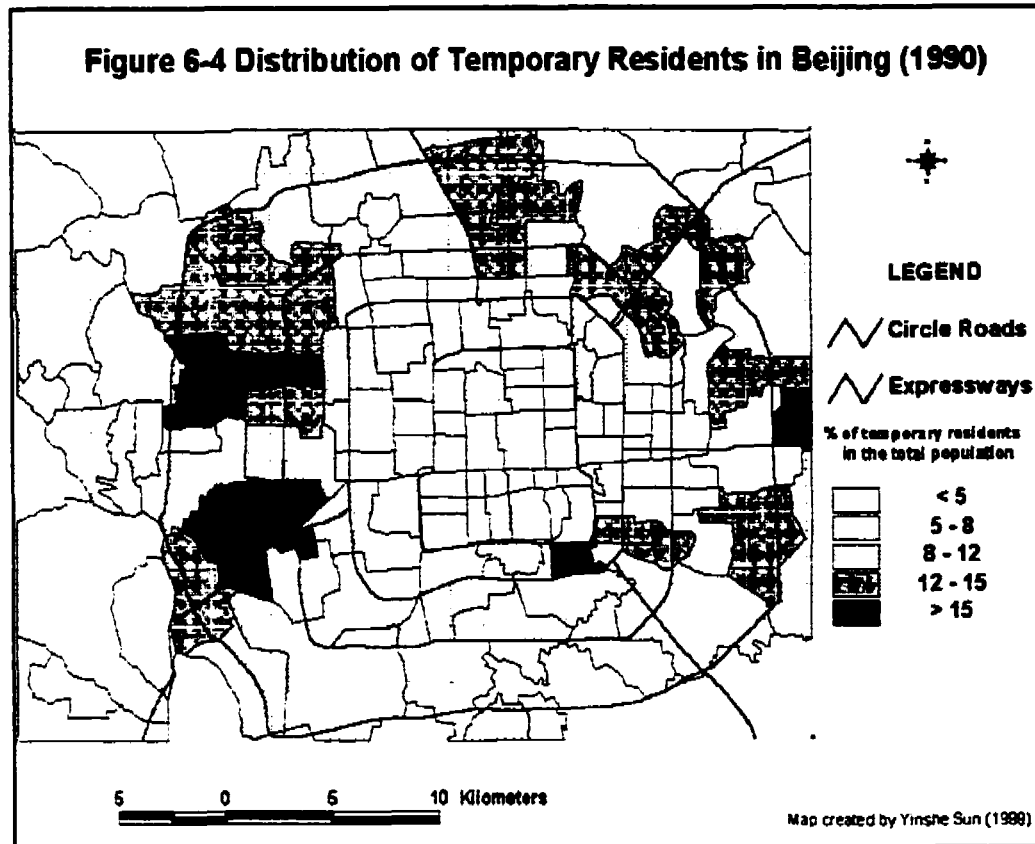
2. The Beijing Statistical Bureau, June 1998, *The Survey of the Population Coming from Outside* (series reports: 1-12).

In order to reveal the spatial pattern of temporary residents in Beijing, it is necessary to first examine their distribution among the districts. Both the 1990 census and the 1997 floating population survey provide spatial data for such an analysis. The census data revealed that temporary residents were mainly distributed in the inner suburban districts. Their average percentage was 7.6% of the total population, much higher than the percentages in both the urban districts and the outer suburban districts

and counties. The inner suburban districts accounted for over a half of the total number of temporary residents in the whole city, compared their share of only 36.8% of the total population. From 1982 to 1990, the number of temporary residents revealed in the censuses increased most rapidly in the inner suburban districts, with an average annual rate of 21.9%, but it increased relatively slow in the urban district, at an annual rate of 8.2% or less than half of the city's average. The 1997 survey data revealed that the inner suburban districts had a share of 62.9% of the total temporary residents in the city, showing a more uneven distribution among the districts than the 1990 census data. There the average ratio of temporary residents to permanent residents was 36%, which far surpassed the ratios of only 15% in the urban districts and 11% in the outer suburban districts and counties, respectively (Table 6-7).

The fourth population census (1990), which provides data at the urban neighbourhood level, makes it possible to reveal a more detailed spatial pattern of temporary residents (Figure 6-4). Within the urban and inner suburban districts, most urban neighbourhoods in the old city area had very low percentages of temporary residents in their total population, typically below 8%. In contrast, all the urban neighbourhoods and townships with higher percentages of temporary residents were located outside the old city, especially outside the city's Third Circle Road. All such neighbourhoods and townships were under massive construction and located in the fringe of the built-up area during the 1980s. The Fangzhuang urban neighbourhood, which had the highest percentage at 39.2%, was Beijing's largest newly-built residential district at that time. Among the top ten spatial units with the highest

percentage of temporary residents, four were newly established urban neighbourhoods, while six still remained in township status. This distribution demonstrates the emergence of a clearly fringe-oriented pattern of temporary residents.



Source: *The Manually Compiled Data of the Fourth Population Census of Beijing City (1991)*.

Different from the concentration of new immigrants in the downtown area in North American cities, this fringe-oriented distribution of temporary residents in Beijing can also be found in many Third World cities. Given the current socio-economic development level in China, this spatial pattern further demonstrates that Beijing is essentially a Third World city. However, population control through the household registration system and administration in Beijing, to a certain extent, has prevented the spread of squatters and slum areas as seen in other Third World cities.



There are five reasons for the distribution pattern in Beijing. First, the relatively low population density in the fringe area makes it possible to accommodate new immigrants. Comparatively, the urban districts have been densely populated and have little room to accommodate more immigrants. Second, privately-owned houses are available for rent in the fringe area. In contrast, within the urban area, most residential buildings that are owned by the state or work-units are not allowed to be rented. Third, most privately-owned houses in the fringe area had poor facilities and their rents are much cheaper than those in the urban districts. Fourth, population control measures that usually restrict temporary residents in Beijing are much weaker in the fringe area than elsewhere. Fifth, many construction sites and industrial places are located in the fringe area. It perhaps is the most important reason because they provide many employment opportunities for temporary residents. The 1997 floating population survey showed that 78.8% of those temporary residents were employed in Beijing, among which 27.6% was engaged in construction and 13.8% in manufacturing (Beijing Statistical Bureau, 1998).

Most of the temporary residents, with their agricultural population status, agglomerate in the urban fringe and form peasant enclaves. Based on their field investigations and the 1994 floating population survey data, Ma and Xiang (1998) examined the peasant enclaves, including the Zhejiang Village, Xinjiang Village, and Henan Village in Beijing. By using the concept of the power of place in their analysis, they associated the geographical agglomeration, the employment specialization, and the *laoxiang* (native-place fellows) relationship of temporary residents with their

native places. Their study provides sociological explanations for the spatial pattern of temporary residents in Beijing, and hence enriches the literature in urban social geography.

## **6.4 Spatial Transformation of Industry**

### **6.4.1 Structural Shift**

Since implementation of the reforms, development of industry in Beijing has been different from that during the previous three decades. The differences are reflected in the changes in the size and spatial distribution of enterprises, the level of technology and the industrial structure. According to the third national industrial census (1995), one of the most significant changes in Beijing's industry is the rapid growth of foreign-invested and township enterprises. The number of foreign-invested industrial enterprises, including joint venture, co-operative and wholly foreign-owned, had reached 2,125 by 1995. While the share of employment in those enterprises had grown from 0 in 1980, to 0.3% in 1985, and further to 10.0% in 1995, the share of the value of output had also increased from 1.3% in 1985 to 23% in 1995. Township industry employed 745,000 workers or 30% of the city's industrial employment and produced 16% of the total output.

Electronics and communication equipment and transport equipment manufacturing were the two most rapidly growing sectors. Between 1985 and 1995, the output of microcomputers increased by 47 times, that of air-conditioners 78 times, and that of motor vehicles 2.6 times. Production of new construction materials, biomedicine, digital machine tools and precision instruments also had increases.

Comparatively, the traditional sectors, including textiles and machinery which employed over 100,000 workers each, had declined significantly (Table 6-8). This structural shift strongly influences the spatial transformation of industry in the market-driven economy in Beijing.

Table 6-8. Changes in Output and Rank of the Industrial Sectors in Beijing: 1985-1995

Industrial Sector	1985		1995	
	% of Output	Rank	% of Output	Rank
Electronic & Communication Equipment	6.1	7	17.1	1
Auto and Transport Equipment	6.7	6	12.6	2
Machinery	10.6	2	7.2	5
Textiles	8.2	4	3.9	9

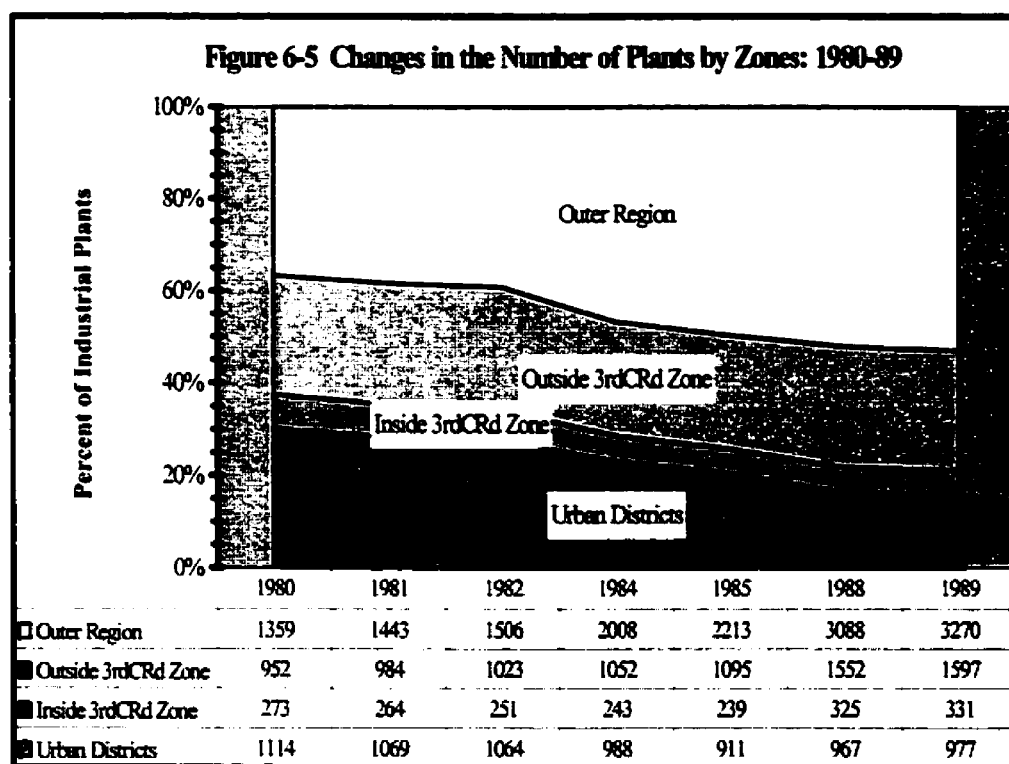
Note: The percentages of industrial outputs in this table were calculated on the 1990 fixed price.

Source: *Beijing Statistical Yearbook 1997*, p. 17.

#### 6.4.2 Industrial Relocation

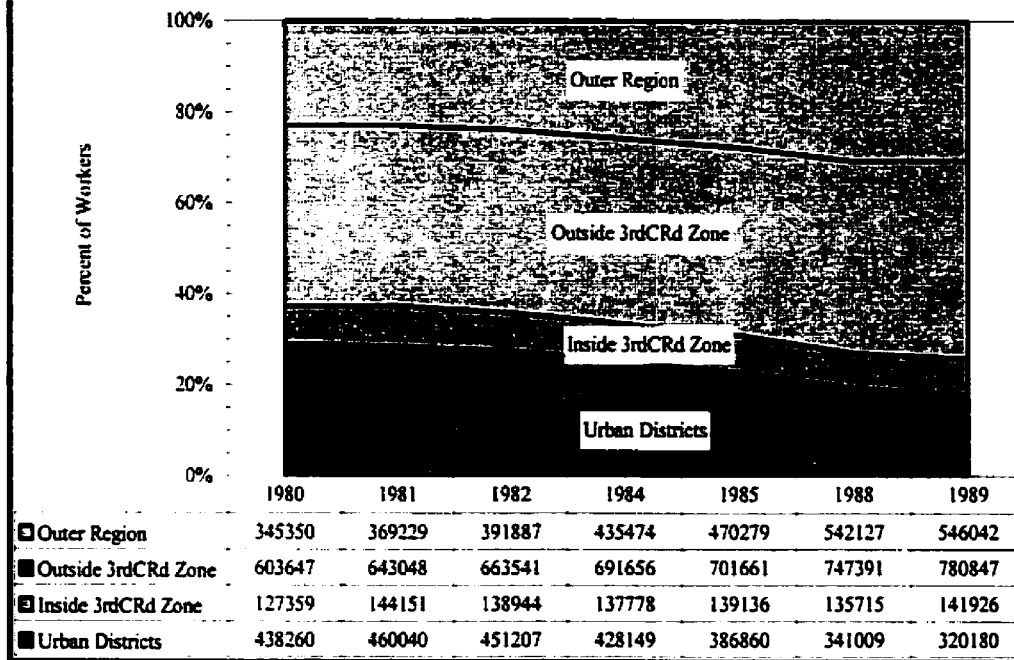
The availability of statistical data for factories during the 1980s makes it possible to analyze the spatial change of industrial plants. In the statistics four concentric zones were identified. These zones include: (1) the Urban Districts; (2) the Inside 3CR Zone, a zone lying between the Third Circle Road and the urban districts; (3) the Outside 3CR Zone, the four inner suburban districts located outside the third circle road; and (4) the Outer Region, the outer suburban districts and counties. Spatial industrial change can be interpreted by the numbers of factories and employees and the value of output. Using these three criteria, it may be determined that industrial relocation occurred in Beijing throughout the 1980s, as shown in Figures 6-5 to 6-7. These figures clearly reveal that the industries in the urban districts underwent an absolute

decline over the years. The number of plants and employees in the Inside 3rdCR Zone experienced an overall relative decline despite of their absolute declines in some years, compared to the changes in the municipality, but the value of industrial output in this zone increased. The industrial sector grew in both the Outer 3rdCR Zone and the Outer Region. Evidently, Beijing's industry shifted spatially from the inner city to the outer regions.



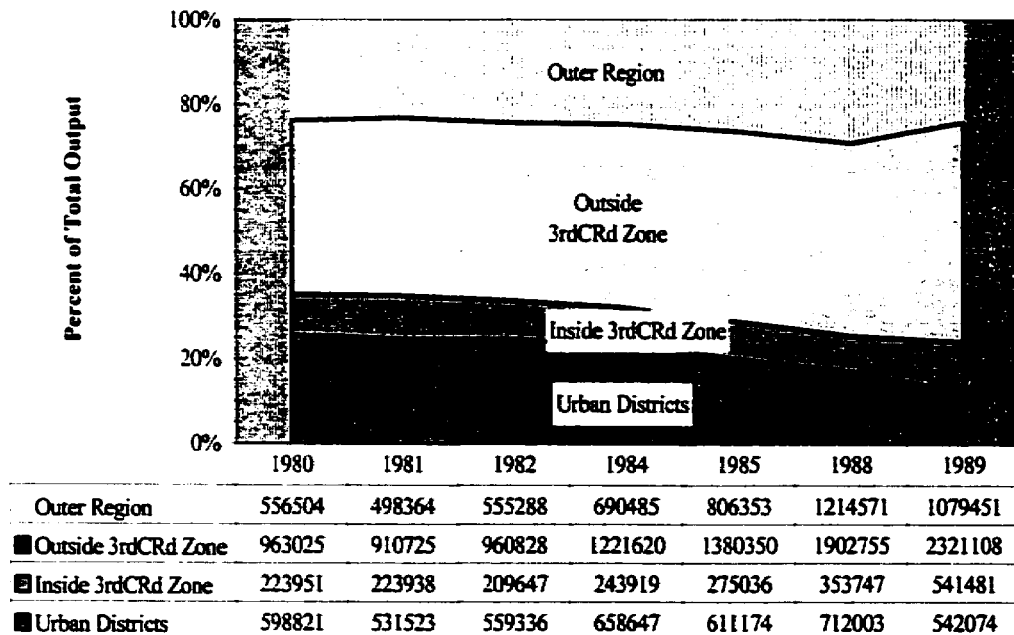
Source: *Beijing Social and Economic Statistical Yearbooks* 1981 to 1990.

**Figure 6-6 Changes in Industrial Employment by Zones: 1980-89**



Source: *Beijing Social and Economic Statistical Yearbooks* 1981 to 1990.

**Figure 6-7 Changes in the Values of Industrial Output by Zones: 1980-89**



Source: *Beijing Social and Economic Statistical Yearbooks* 1981 to 1990.

Continuation of this trend was confirmed by the 1995 national industrial census. According to the census, industry in the urban districts continued to decline quickly. Industry in the four suburban districts, or the merger of the Inside 3rdCRd and Outside 3rdCRd Zones, increased during the 1980s but decreased in the 1990s. The outer region had grown in importance in the city's industrial production. Its share of industrial employment reached the same level as that in the suburban districts, and its value of output was one third of the city's total. In addition to the relocation of industrial plants from the inner urban districts, two factors contributed to the rapid industrial growth in the outer region. State investment in industry gradually increased in the outer region due to restrictions in such investment in the urban districts. Rapid growth of rural industry in the outer suburban districts and counties also significantly increased their shares in the industrial activity of the municipality.

Table 6-9. Changes in Industrial Distribution by Three Zones 1980-1995

Industrial Change	Year	The Urban Districts	Inner Suburban Districts	Outer Region
% of the Number of Plants	1980	30.1	33.1	36.8
	1989	15.8	31.2	53.0
	1995	N/A	N/A	N/A
% of Industrial Employment	1980	28.9	48.3	22.8
	1989	17.9	51.6	30.5
	1995	12.9	43.8	43.3
% of the Value of Industrial Output	1980	25.6	50.7	23.8
	1989	12.1	63.8	24.1
	1995	11.2	55.9	32.9
<b>Trend of Change</b>	<b>1980-95</b>	<b>Decrease</b>	<b>First Increase, then Decrease</b>	<b>Increase</b>

Source: 1. *Beijing Social and Economic Statistical Yearbook 1990*, pp. 259-76.  
2. *Beijing Statistical Yearbook 1997*, p.17.

Table 6-10. Industrial Land-use Change in Beijing's Urban Districts 1980-1990

Types	No. of Plants	%	Dongcheng Xicheng Chongwen Xuanwu			
1. Office	36	54.5	6	17	8	5
2. Other Commercial Use	10	15.2	1	3	4	2
3. Residence	11	16.7	4	1	1	5
4. Technical School	4	6.1	1	1	1	1
5. Historical Site	3	4.5		1	1	1
6. Road	2	3.0				2
<b>Total</b>	<b>66</b>	<b>100</b>	<b>12</b>	<b>23</b>	<b>15</b>	<b>16</b>

Source: Compiled from *Beijing City Planning and Construction Review*, 1991, No. 3, p. 64.

The spatial transformation of industry in the urban districts occurred in several forms. First, seriously polluting industrial plants were removed from the urban districts to the outer region by administrative decrees. On average, more than ten factories or workshops were moved out per annum during the early 1980s. However, when the municipal government reduced the financial support for relocation and required the factories to bear 70% of the moving costs, some factories were reluctant to move (Wu, 1989). Second, some factories that chose to remain at their original sites moved their component production, through production co-operation, to the factories located in the outer regions, especially to those of township enterprises. The Bailan Washing Machine Factory in Beijing, for example, contracted about 90% of its components production out to township and village enterprises in the early 1980s, which resulted in an increase of output of washing machines by 30 times and an increase of profits by 50 times within five years (Sun, 1986). In order to obtain more production space and expand their output, some factories contracted out their entire production, or established joint ventures with manufacturing plants located in the outer region. Third,

industrial land-use was changed to other uses to adapt to the market economy. For example, the Beijing Match Factory that was located outside Yongding Gate south of the city leased its land for commercial development. The site was jointly developed into an office, retail and residential complex, and the rent received enabled the factory to move to the Ciqu Industrial Tract in Tong County. Located in Dongsì, in proximity to Wangfujing, the Beijing Woollen Sweater Mill converted 1,000 sq. m of its land, as an experiment, to be used for the Sanyou Emporium in 1994. The profit from the emporium equalled that of the factory occupying 10,000 sq. m of land in 1995. Thus the profit per unit of land for commerce was ten times that of industrial land. Driven by this enormous profit, the factory ultimately decided to move out (Fan, 1996:10). At present, many plants, particular those in the Eastern Suburban Industrial District are converting their factory sites into commercial use. Fourth, a number of industrial plants were transformed to services or other enterprises after they merged or were purchased. Located inside the Third Circle Road north, the former Beijing Second Watch Factory incurred losses in the early 1980s. After it merged with Dong'an Commercial Group, one of the giant retailers in Beijing, and converted its site into the Shuang'an (Double Peace) Department Store, it became one of the largest department stores in the city (Sun, 1997:27).

Land use change has been commonplace in the urban districts. Specifically, industrial lands were converted into other uses. This process is mainly driven by three factors. First, urban redevelopment requires improving the living conditions in the old city. As a result of the pre-reform policy "Sticking in pins wherever there are rooms



(*jianfeng chazhen*)", industrial plants were built wherever there was space intermingling with the already overcrowded residential areas during the 1960s and 1970s. By 1977 there were more than 800 plants, one fourth of the city's total, in the old city. The Xuanwu District is perhaps the best example, where 96 plants and workshops owned by the district were scattered in 363 different locations. Those having 2 to 4 sites each accounted for 50% and those with 5 to 8 sites each accounted for 28%. A few plants were located in as many as 12 to 13 different sites (The State Science and Technology Commission, 1985: 90; 139). In 1983 there were still 1,022 plants in the four urban districts, an average of 12 plants per square kilometre. Total industrial land-use made up 19% of the urban districts (Wu, 1987). Second, most of the factories in the urban districts caused serious environmental problems, such as noise, toxic waste and air pollution. According to a survey of 66 factories that had been moved out of the urban districts, 91% of them had the above problems (Table 6-10). Third, profit-driven urban redevelopment is an increasingly important factor. As shown in Table 6-10, about 70% of the industrial land was converted to business offices and other commercial uses, including retail use. An investigation in 1993 showed that the 91 surveyed industrial plants located within the Second Circle Road, occupying a total of 190 ha of urban land, produced an average annual profit of 30 Yuan per square metre, which was only about 1/50 of the average of the profit derived from commercial uses (The Industry Section of Beijing Planning Commission, 1993). Another survey of 95 industrial enterprises in the old city indicated that the profit per unit of land for industrial use was 1/10 of that for commercial use on the same street.<sup>13</sup>



#### **6.4.3 New Industrial Space: Industrial Development Zones**

New industrial space generally refers to sites occupied by high technological industry in North America and Western Europe (Scott, 1988). The term used here denotes a new form of industrial landscape in China, represented by high-tech industries in various development zones or industrial parks that are distinguished from the traditional industrial districts. The Beijing Economic and Technological Development Area (*Beijing jingji jishu kaifaqu*, abbreviated as BETDA) and the Beijing Experimental Zone for the Development of New Technological Industries (*Beijing xinjishu chanye kaifa shiyanqu*, abbreviated as BEZDNTI) will be examined in the context of their impact on Beijing's urban development. The newly developed industrial tracts around the urban fringe will also be discussed.

##### *The Beijing Economic and Technological Development Area (BETDA)*

Founded in August of 1991, the BETDA was one of the national development zones approved by the central government. Like others of its kind in China, BETDA is designated to attract foreign investments. The enterprises in BETDA are permitted in forms of wholly foreign-invested, equity joint-venture or China-foreign cooperation. The fields for investment include manufacturing, urban infrastructure and real estate development. Hi-tech enterprises, export-oriented enterprises and those producing high quality and world brand products are particularly welcome. Besides the huge potential market and the availability of cheap labour in China, other major lures for foreign investors include low land cost and tax holidays. Foreign-invested enterprises

need not pay the low enterprise income tax (EIT) of 15% for the first two years, and then may get a three-year half-reduction.

The BETDA is well designed in terms of its infrastructure and services. It is a newly built satellite town surrounded by a green belt. It not only consists of an industrial zone, but also contains residential areas, a research centre, an administration centre, a shopping mall, hotels and recreation facilities. In addition, administration within the development area is more simplified than elsewhere in Beijing.

The BETDA lies at the southeast of Beijing's built-up area, and is located along the Beijing-Tianjin-Tanggu Expressway, connecting to the port city of Tianjin (Figure 6-8). Tianjin is only 140 kilometres southeast of the national capital. It is China's third largest city, with over 5 million inhabitants, and the largest container seaport in north China. On the north side of the BETDA, the International Container Transit Station and the Beijing International Goods Circulation Centre, as well as a customs house and a commodity inspection bureau have been newly constructed beside the expressway. The development area is strategically located at the communication hub linking Beijing, Tianjin, and Tanggu seaport, served by a transportation network of air, land, and sea.

With 15 sq. km of development area in its first phase, the BETDA had attracted 83 enterprises with US\$ 289 million of foreign investment by 1994, and 108 enterprises with US\$ 560 million by 1996 (Beijing Statistical Yearbook 1995: 614; 1997:520). Among these, about one-third were multinational corporations, such as General Electric and Coca-Cola (USA), Bayer (Germany), Panasonic and SMC

(Japan) and ABB (Switzerland). It was reported that by October 1998 there were 272 enterprises, of which 22 contained investments by the world's top 500 companies<sup>14</sup>. According to the 1991 master plan for Beijing, BETDA was to be a small city with a population of 150,000 and its economy based on hi-tech industries and export by the beginning of the 21<sup>st</sup> century. It would grow into a medium-sized city, accommodating a population of 400,000 to 500,000. It is significant that the expansion of the BETDA will accelerate the transformation of industrial structure and location in the national capital. It has also been recognised that the urban structure of Beijing will ultimately be changed by this rapidly growing satellite town.

*Beijing Experimental Zone for the Development of New Technological Industries (BEZDNTI):*

As China's first and largest hi-tech industrial zone, the BEZDNTI was officially established in the national capital, after its approval by the State Council in May 1988. The sole purpose of its establishment was to catch up with the rest of the world in new technology development. As the nation's largest scientific and cultural centre, Beijing provides the most ideal conditions for the development of hi-tech industry in the country.

Centred at Zhongguancun of Haidian District, the BEZDNTI has been designated within an area of 100 square kilometres (Figure 6-8). Within the zone there are 138 scientific research institutes and 40 universities and colleges, forming the most comprehensive research centre in China. Zhongguancun, known as a "scientific city (*kexue cheng*)", is the home of many of the nation's renowned scientists. It contains

many institutes of the Chinese Academy of Sciences and Peking University. Adjacent is located the prestigious and well-known Tsinghua University.

Since the first hi-tech enterprise emerged in Zhongguancun in 1980, others have grown rapidly. The number reached 11 by 1983, 90 by 1985, 148 by 1987, and 974 by 1990 (Sun, 1993:141). In 1996 there were 4,438 such enterprises, including 1,035 foreign-invested enterprises. Since its establishment, the BEZDNTI has turned over 2.215 billion Yuan of taxes and accumulated a total income of 59.66 billion Yuan derived from technology exchange, industrial products and export, among which the gross output value of industrial products accounted for 22.63 billion Yuan. The annual growth rates of the above criteria remained higher than 40%. The leading industries in the zone, including electronic information, optics-machinery-electronics integrated industry, new materials and new energy resources, and new medicines and biomedical engineering, earned 47.9%, 20.1%, 13.1% and 6.1%, respectively, of the total income (The Administrative Commission of BEZDNTI, 1997). Although many enterprises remain small in size, the leading enterprises in the BEZDNTI, including Stone (*Sitong*), Founder (*Fangzheng*), and Legend (*Lianxiang*), have been among the top enterprises in the country. The laser photo-printing system of the Founder holds the monopoly in China, with over 95% of market share, and has begun to expand its market in Hong Kong, Macao, Singapore, and Japan. Many of the world's leading enterprises in the information technological industry, including IBM and Microsoft, have established their networks in Zhongguancun.

Like many other hi-tech parks, the BEZDNTI in Zhongguancun is the centre for high-tech research and development (R&D). Limited space has restricted rapid growth of the industry. Therefore, since the early 1990s three branch parks have been constructed to accommodate this fast-growing sector. The Shangdi Information Industry Base is located north of Yuanming Yuan (the Old Summer Palace), adjacent to Zhongguancun, and occupies an area of 180 hectares. Its function includes R&D, production, business training and the provision of services to the electronic information industry. By 1995 it became the home for 85 enterprises including Legend, Founder, Stone, Rainbow (*Caihong*), as well as Novo Nordisk (Denmark), IBM (USA) and FANUC (Japan). The Fengtai Branch, located southwest of the city and with a developed area of 1.24 sq. km, concentrates on the development of technologies in applied aeronautics, biological engineering and new materials (The Administrative Commission of BEZDNTI, 1997).

*Industrial Tracts for the Relocated and Township and Village Enterprises*

The outer region and urban fringe provide ideal sites for the relocation of industrial plants from the urban districts and for the development of township and village enterprises. In order to avoid spreading industrial pollution and to meet the technical requirements of enterprises, special industrial districts/tracts were built to accommodate the relocated plants. Establishment of the textile industrial tract (*fangzhi gongye xiaoqu*) is such an example. Located in Dingfuzhuang, east of the planned urban area, the tract was built in the early 1980s. It accommodated 11 textile, dyeing, printing, and knitting mills which were removed from the old city, and employed a

total of 7,600 workers (Wu, 1987). After their relocation, the enterprises were able to cut waste and increase production efficiency, as they could share infrastructure and utilities. Similar industrial areas are also found in Lishuiqiao of the Chaoyang District (*biaozhunjian gongye xiaoqu*, or the standardised components industrial tract), Lugouqiao of the Fengtai District (*jijie gongye xiaoqu* or the machinery industrial tract), and Ciqu of the Tong County (*huxue gongye xiaoqu*, or the chemical industrial tract).

During the 1980s and early 1990s, the township and village industry in suburban Beijing was scattered over a large area, resulting in a significant waste of land as well as being the source of environmental pollution. In order to ameliorate the situation, establishment of township industrial tracts was proposed by the Beijing planning authorities. By 1993, 74 such tracts had been constructed (Cao, 1994:27-28). However, only those located at the urban fringe have influenced the industrial land-use pattern of the central city.

### **6.5 New Commercial Complexes and the Emergence of the CBD**

The central business district (CBD) is the spatial focus in which the *form* and *function* of the city are most closely interrelated (Hartshorn, 1992:322). Typically occupied by a large number of skyscrapers, the CBD also symbolises the socio-economic vitality and strength of the city. The dominance of the imperial city in central Beijing had curtailed the establishment of a prominent CBD. Nevertheless, the commercial district, which originated outside Qianmen before the middle of the 20th century, could be regarded as an embryonic form of the modern CBD in the city. The



existence of a market economy that is necessary for the formation and functioning of the CBD was non-existent in the socialist system. Further, the socialist planning principles advocated urban-rural balanced development and averted over-concentration of commercial and service functions in the city, resulting in a relatively uniform cityscape. For these reasons, the CBD did not exist in Beijing before the reform.

The recent two decades have witnessed the proliferation of prestigious hotels and large office complexes in Beijing. Those high-profile structures have become the most dominant landmarks and created a new skyline in the city. They are also important as they accommodate many domestic and foreign corporations that control the commercial activities of the city. With the increase of foreign investment in Beijing, a growing number of office complexes have been built to serve the foreign business community. Meanwhile, the market-driven economy has created an increasing demand for office space and commercial complexes. Those complexes first emerged in Beijing in the early 1980s and they mushroomed to form several business districts in the city in the 1990s.

#### **6.5.1 Growth of Foreign-oriented Office Complexes**

Beijing was among the open cities in China which first received foreign investment. Since the early 1980s foreign capital has been used to build tourist hotels in the national capital. Along with the gradual opening of more economic sectors to foreign investment, the amount of offshore capital flowing into China grew significantly in the recent two decades. To penetrate into China's markets, many

foreign manufacturers established their local head offices (*zhujing daibiao jigou*) in Beijing during the 1980s. The increase in investment led to the upgrading of some of those local head offices to regional offices, which manage and conduct their business in China, and for some even the entire Pacific-Asia area. These companies include U.S.-based Motorola and McDonnell-Douglas, and German-based Siemens. Motorola invested heavily in Tianjin, Shanghai and other cities, but its management and training centre was established in Beijing.<sup>15</sup> German-based Siemens AG began its business in China as early as 1982 when it opened its first office in Beijing. A decade later, it operated 12 holding companies, 44 joint ventures, and 22 offices across the country. Siemens Ltd China, the company's headquarters was then located in Beijing.<sup>16</sup> McDonnell-Douglas Corp. began to subcontract some parts production of its MD-type aircraft to manufacturers in Xi'an and Shenyang and to an assembly plant in Shanghai after 1990. However, one of its four worldwide maintenance and repair centres was established in Beijing in 1995, serving the Pacific-Asia region.<sup>17</sup> In fact, due to market competition, both Boeing and Airbus also established their service centres in Beijing at the same time.<sup>18</sup>

As China's political centre and economic management centre, Beijing offers special attractions to multinational corporations, international organizations and worldwide media companies. By 1996 there were over 140 foreign-based news agencies in the city. All the subordinate organisations of the UN, the World Bank and the International Monetary Fund (IMF) established their China offices in the national capital. As China's largest transportation centre, the city attracts many international

airline companies. Air France has recently moved its Pacific-Asia head office from Hong Kong to Beijing.<sup>19</sup> The Capital Airport in Beijing serves many international airlines. Moreover, being China's scientific and cultural centre, Beijing is the most important base for hi-tech industry. Since setting up its first technical service and training program in Beijing in 1981, the Hewlett-Packard Company (HP) has been vigorously pursuing co-operation in technological development with China. At present HP China has established a joint research & development centre and manages a dozen enterprises and sales offices in the country.<sup>20</sup> In 1995 IBM moved its regional headquarters from Hong Kong to Beijing.<sup>21</sup> IBM China is also managing a research laboratory, an information centre and a sales department in the city, as well as nine offices in other Chinese cities. Other hi-tech industry giants, including Compaq, DEC (Digital Equipment Company), Microsoft and Cisco, have opened regional offices in Beijing.

Much of the significant increase in the number of foreign-based companies in Beijing should be attributed to the opening of the tertiary sector to foreign investors in 1992. Since then the number of foreign companies in the financial sector, transportation, retailing, real estate, business consulting and accounting have increased rapidly in the city (Table 6-11). Arthur Anderson, one of the world's leading consulting companies, has chosen Beijing as its base to conduct business in China. There were 214 foreign-owned, joint venture or co-operative real estate agencies in 1996, accounting for nearly 40% of the same type of enterprises in Beijing. During 1995 and 1996, 11 foreign banks, including Tokyo-Mitsubishi, CITI Bank, the Industrial Bank

of Chicago, and the Bank of Montreal, were permitted to open their branches in Beijing. By 1996, 116 foreign banks, 68 insurance companies and 31 other financial institutions had opened their offices or branches in the city.<sup>22</sup> Lured by China's huge market, an increasing number of multinational corporations set up their offices in Beijing, or moved their offices from other locations to the capital. The Banque National de Paris that invested in China through its Hong Kong branch in the past has decided to relocate its China office to Beijing.<sup>23</sup> Recent statistics show that there were over 6,700 registered foreign offices in Beijing in 1998, which ranked first among all Chinese cities.<sup>24</sup> With the exception of those from Hong Kong and Macao, most of these companies or enterprises that have offices in Beijing are based in industrialized

Table 6-11 Numbers of Foreign Representative Offices in Beijing

Country /Region	1985	1992	1994	1996
Hong Kong & Macao	N/A	360	1291	1752
USA	N/A	221	656	986
Japan	N/A	374	573	676
Germany	N/A	88	168	250
Singapore	N/A	22	141	214
U.K.	N/A	43	94	144
France	N/A	57	92	142
Canada	N/A	15	83	135
Italy	N/A	42	83	115
Australia	N/A	16	60	98
Switzerland	N/A	28	27	68
The Netherlands	N/A	12	36	57
Sweden	N/A	17	27	36
Austria	N/A	11	24	36
Belgium	N/A	N/A	21	34
<b>Total</b>	<b>219</b>	<b>1700</b>	<b>3894</b>	<b>5532</b>

Source: *Beijing Statistical Yearbook 1997*, p. 307; *Beijing Social and Economic Statistical Yearbook 1986*, p. 63.

countries (Table 6-11). Their presence in China manifests the influence of globalization through multinational corporations, leading to changes in the urban functions and spatial pattern of commercial land use in Beijing.

Table 6-12 Spatial Distribution of the Five- and Four-Star Hotels in Beijing (1996)

Rank (1996)	Period	"The Trapezoid-shaped Area" <sup>[1]</sup>	Other Locations	Total No.
Five-Star	Before 1980	Beijing Hotel (1917)	Diaoyutai State Guest House (1959)	2
	After 1980	The Great Wall Sheraton (1984), Kunlun (1987), Grand Beijing (1989), The Palace (1989), China International (1990), Jingguang New World (1990), New Otani Changfu Gong (1991), Swissotel (1991), Beijing Hilton (1992), Holiday Inn Crown Plaza (1992), Kempinski-Lufthansa (1992)	Shangri-La (1987), ANA Beijing New Century (1991)	13
Four-Star	Before 1980	Wangfujing Grand (1962)	Friendship VIP (1954)	2
	After 1980	Jianguo (1982), Beijing-Toronto (1984), Beijing International (1985), Zhaolong (1985), Gloria Plaza (1987), China International Trade Centre (1990), Grace (1990), Landmark (1990), Tianlun Dynasty (1990), China Resource (1991), Scitech (1991), Yuyang (1992)	<u>Nearby the "Trapezoid-shaped Area":</u> Holiday Inn Lidu (1987), Capital (1989), Jintai (1991) <u>Other Locations:</u> Fragrant Hill (1982), Xiyuan (1984), Continental Grand (1990), Grand View Garden (1990), Mandarin (1990), Debao (1991), Central Garden (1992)	22
Total		25	14	39

**Note:** "The Trapezoid-shaped Area" takes the southern and northern entrances of Wangfujing Street, Sanyuan Overpass, and the China International Trade Centre as its four vertexes. It is approximately bounded by Chang'an Boulevard in the south and the Eastern Third Circle Road in the east. The area is outlined on Figure 6-9 and 6-10. Some hotels that are located at the south side of Chang'an Boulevard or the east side of the Eastern Third Circle Road are also included in this area.

**Source:** Compiled from *Beijing Statistical Yearbook 1997*, pp. 311-15; and the Beijing ECUCH, 1992, *Historical Material of Beijing Urban Construction Since 1949 - Housing Construction (II)*, Appendix 2, pp. 421-426.

Table 6-13. Distribution of Foreign Bank Branches and Representative Offices

Area	Major Complex	# of Institutions	Name of Financial Institutions
Jianwai (53)	The China International Trade Centre	20	Banque National de Paris; Deutsch Bank; The Development Bank of Singapore; Korea Exchange Bank; Korea Housing Bank; Royal Bank of Canada; Bank of Montreal
	New Otani Chang Fu Gong Centre	13	Tokyo Marine and Fire Insurance Co.; Fiji Bank
	CITIC Building	12	The Industrial Bank of Chicago; J.P. Morgan; Deutsch Commercial Bank; Australia National Bank; Sweden Commercial Bank
	Scitech Centre	7	Australia West Pacific Bank; Switzerland Zurich Insurance
	International Club	1	Austria Central Co-operative Bank
Chaowai Area (6)	Jing-Guang Centre	5	The Netherlands Bank
	H.K.- Macao Centre	1	Standard Chartered Bank
Jiannei (4)	CGOC Square	2	The Hong Kong and Shanghai Banking Corporation; Lincoln National Group
	Beijing-Grand Hotel	2	Manufacture Life of Canada; Bank of Paris
Eastern Third Circle Rd N. (15)	Fortunate Building	7	The Bank of Tokyo Mitsubishi Ltd.,
	Lufthansa Centre	6	Dresden Bank; Brussels Bank
	Capital City Bldg.	2	Royal & Sun Alliance Insurance Group
Others (2)		2	Belgium General Bank

Source: Compiled from the business section of *Beijing Telephone Directory 1997*.

The spatial patterns of foreign investment for business and commercial construction in Beijing were heavily influenced by the location of the foreign embassy quarters in the east of the city. During the early 1980s, many of the joint-venture hotels, including Jianguo, the Great Wall Sheraton, Beijing International, Holiday Inn

Lidu and Beijing-Toronto Hotel, were erected near the embassy quarters to serve the international community. Facilities of this kind proliferated in the latter 1980s. While a number of them, such as the Shangri-La, ANA Beijing New Century and the Continental Grand, are scattered in the west or north of the city, two-thirds of the 27 four- and five-star hotels built between 1986 and 1995 are situated at the eastern part of the city. Specifically, 11 of the 13 five-star hotels built after 1980 agglomerated within a trapezoid-shaped area that is formed by Wangfujing Street and the Eastern Third Circle Road North as its laterals (Table 6-12).

As soon as the hotels were opened during the early 1980s, foreign businesses rented rooms for offices and for employee accommodations. Investments made after the late 1980s were designated for the construction of buildings containing offices and apartments. When China permitted foreign capital to be invested in real estate development in the late 1980s, buildings containing offices, hotels, retail centres and health clubs began to be constructed for international businesses. Three major types of such developments have emerged, including office towers, multi-use complexes and luxury apartments (Gaubatz, 1995). A prominent example of the multi-use complexes is the 38-storied China International Trade Centre (*zhongguo guoji maoyi zhongxin*) which comprises a convention centre, two hotels, two office towers, two apartment buildings, a shopping mall and a recreation club. It occupies 12 ha of land and provides 420,000 square metres of floor space (Beijing ECUCH, 1992:179). In addition to proximity to the embassy quarters, the rapid growth of office complexes and associated facilities in the city's east has also drawn other companies to locate

there. This change has transformed the eastern area into a zone of high-rise structures and vigorous commercial activities. Statistics derived from the business section of the Beijing Telephone Directory 1997 showed that 78 foreign bank branches and representative offices among a total of 80 were located in the trapezoid-shaped zone, within which the Jianwai area anchored by the China International Trade Centre is the largest (Table 6-13). The 81 investment companies (*touzi xing gongsi*) founded by multinational corporations also exhibit the same pattern of distribution (Table 6-14).

Table 6-14 Distribution of Foreign Investment Companies in Beijing

Area	# of RO	Major Complexes	Major Companies
Jiangwai	29	The China International Trade Centre (10), CITIC Bldg.(8), Intl Club (3), Civic Centre (3), Donghai Centre (2), Kelun Bldg (2)	Ford, Union Carbide, HP, Westinghouse, Shell, Toshiba, Sanyo Electric, Itochu,
Chaowai Area	4	Jing-Guang Centre (2), Hong Kong - Macao Centre (1), Fuhua Mansion (1)	Bayer
Jiannai Area	6	Beijing Hotel (2), Guanghua Changan (2), Changan Bldg (1), CGOC Square (1)	Canon, Samson, Nortek
The NE 3 <sup>rd</sup> Circle Rd. Area	19	Fortunate Bldg(6), Landmark Tower (2), Lufthansa Centre (2), Oriental Intl Bldg (2), Capital City Bldg (1),	Fujitsu, Sony, Xerox, LG, Ericsson
Airport Rd. Area	5	Lidu Commercial Bldg, etc.	IBM, Nestle
Others	18	Scattered in many places	Motorola, Panasonic, Unisys

Source: Compiled from "Beijing Investment Environment" ([www.tpbj.gov.cn/Chinese/bjinvest/](http://www.tpbj.gov.cn/Chinese/bjinvest/))

### 6.5.2 The Market-driven Economy and "The Financial Street"

In 1952, three years after the establishment of the socialist system in China, all commercial banks that existed before the communist revolution were forced to form



jointly owned state-private co-operatives or shut down. After 1958, all private banks, insurance companies and other types of financial institutions were eliminated completely. Only one state bank, the People's Bank of China, continued to operate. During the following two decades, it functioned both as the central bank issuing currencies and served as a commercial bank with a monopoly in handling savings and business loans. Among the various types of markets introduced by the economic reforms, the financial market is the most important. Hence, restructuring of the financial system, an immediate task at the beginning of the reforms, included resumption of the People's Insurance Company of China. In 1984 further restructuring occurred. Four state-owned commercial banks were established by splitting the People's Bank, and the latter was reorganized to form the central bank. Successive reforms of the financial system resulted in the opening of more commercial banks in the country. With the exception of a few located in Shanghai, Shenzhen and Xiamen, most of these newly established commercial banks, including the CITIC,<sup>25</sup> the Everbright (*Guangda*), Huaxia, Mingsheng, and the Beijing City Commercial are based in Beijing. Three national development banks, the Investment Bank, State Development Bank, and Agricultural Development Bank, all set up their headquarters in the capital. Besides the People's Insurance Company of China, three new insurance companies, Taikang, Xinhua, and Huatai,<sup>26</sup> as well as many other domestic financial organizations such as trust companies have emerged in Beijing. In terms of their assets and revenues, the Industrial and Commercial Bank, the Bank of China, the Construction Bank, and the Agricultural Bank were China's top four, and ranked the

second, ninth, twelfth, and fourteenth, respectively, among the top 500 financial firms in Asia, if Japan was excluded.<sup>27</sup> Given their dominance in the country, these banks have made Beijing China's financial management centre and a leading financial market in the country.

Unlike the distribution pattern of foreign banks, most Chinese banks in Beijing are located in the west of the city, lying between the Second and Third Circle Roads West. The choice of the locations of these banks was largely influenced by the presence of many government offices in Sanlihe. Developed in the 1950s, the Sanlihe area is known as the management centre of China's economy, because it is the home of the most important central ministries for economic affairs, including the State Planning Commission, the State Economic Commission, the Ministry of Finance, the General Administration for Industry and Commerce, as well as several other industrial ministries. In the mid-1980s when the state banks were resumed, they were located near Sanlihe. While the headquarters of the Bank of China and the People's Insurance Company were located on the Western Second Circle Road at Fuchengmen in 1986, the other three commercial banks were placed along Fuxing Road to the west. The completion of the headquarters of the People's Bank of China inside Fuxingmen in 1990 raised a planning issue concerning the location of major banks in Beijing. The discussion led to a proposal for developing a banking district or "The Financial Street" (*Jinrong jie*) between Fuxingmen and Fuchengmen beside the Western Second Circle Road. The headquarters of the People's Bank, the Bank of China, and the People's Insurance Company have already been located within "The Financial Street", and in

close proximity are the headquarters of the Construction Bank and several Beijing branches of other banks. Since the early 1990s, about ten large office buildings specifically for financial organizations have been erected under the guidance of city planning. With its convenient location and well-developed facilities such as information networks, the financial street has accommodated a large number of domestic financial institutions. Other new organizations, including the State Stock Market Administrative Commission, constructed their office buildings within the area. The Beijing branches of the Industrial and Commercial Bank and the Bank of Communication, and the State Exchange Administrative Bureau have also relocated their offices there. According to the plan, the financial street will finally occupy 103 ha of land where there will be buildings with over 3 million sq. m of floor space (Wang, 1995). It will be the Chinese financial management centre, also performing various other financial related functions, including international financial information, foreign exchange, stock, financial accounting and future marketing.

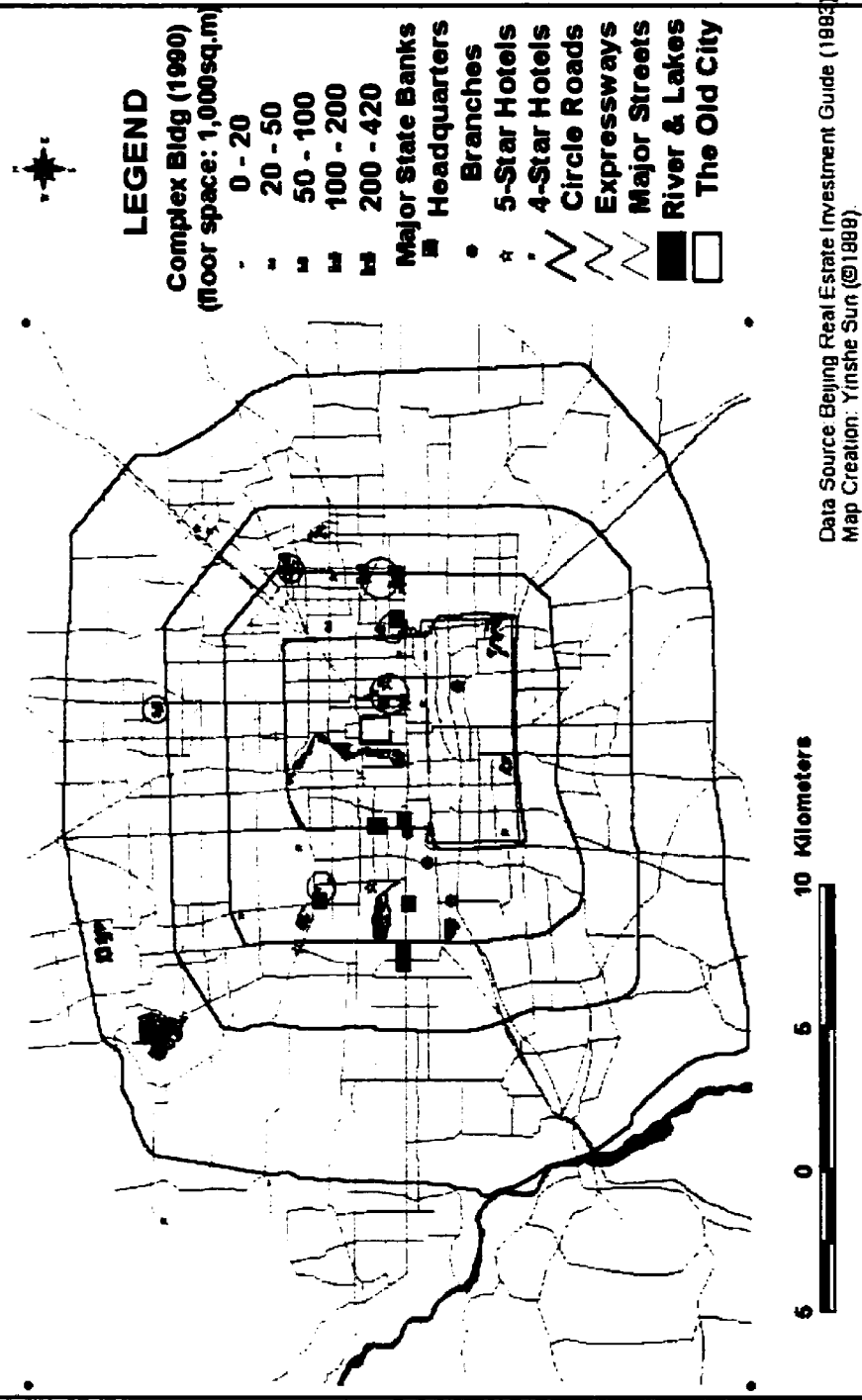
It should be noted that the emergence of the financial street, together with the urban planning authority's recommendation, has drawn some state-owned corporations to locate in nearby areas. The Sinochem (*Zhong hua*), the Everbright Group (*Guangda jituan*), and China Ocean Transportation Corporation (*Zhongguo yuanyang yunshu gongsi*) have founded their headquarters in Fuxingmen. Also the US-invested Vantone (Wantong) New World Square, with 110,000 sq.m of floor space, has been erected at Fuchengmen at the north end of the financial street. Meanwhile, several shopping facilities such as the Parkson (Baisheng) Shopping Centre,<sup>28</sup> Fuxing Shopping Town,

Changan Department Store, Hualian Emporium, Spring Paris Mall,<sup>29</sup> and Vantone New World Shopping Centre have been opened inside or around the financial street area (Wang, 1995a). All these construction projects have undoubtedly converted the financial street into a major business centre in Beijing.

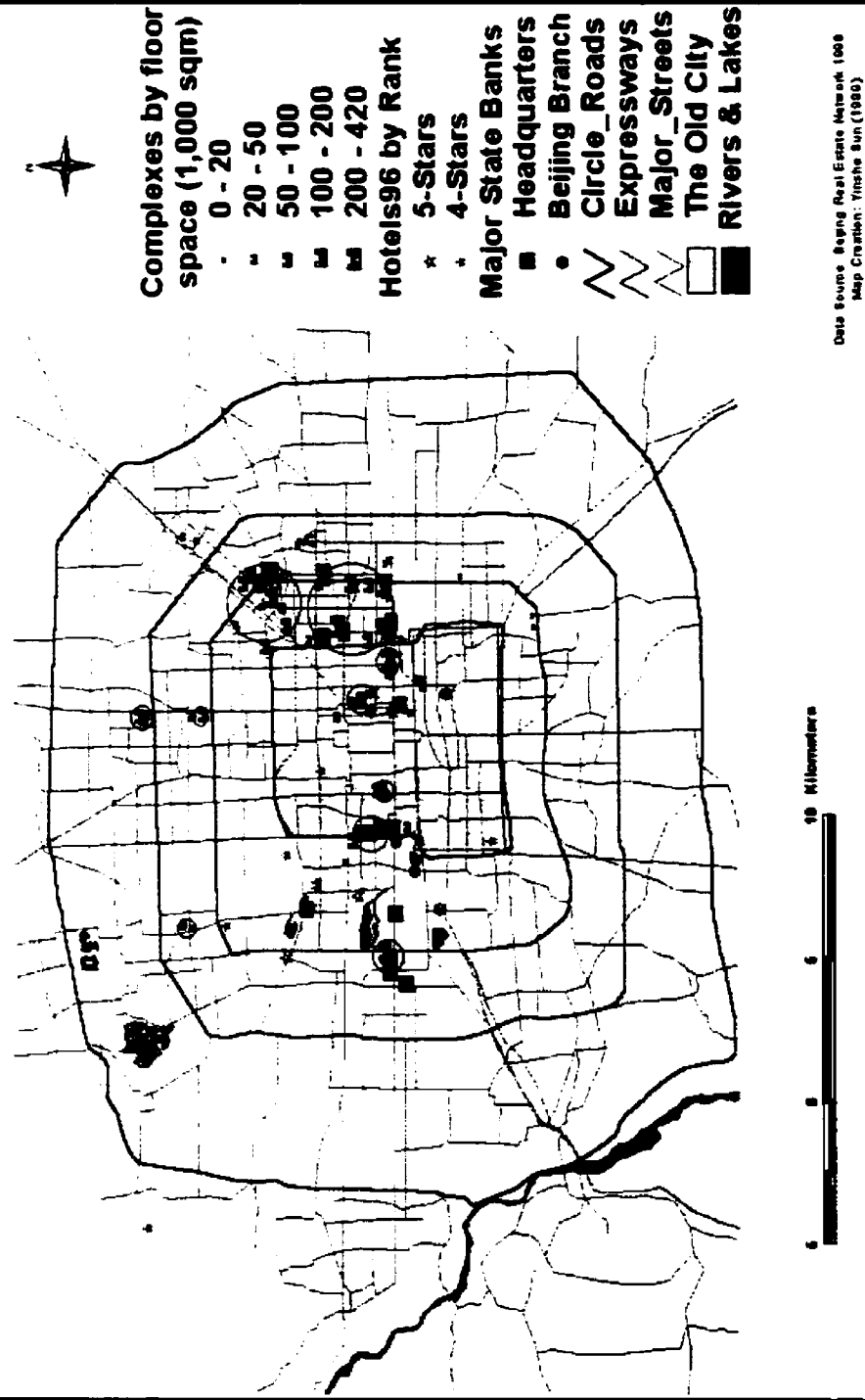
### **6.5.3 The Emergence of Dual-CBD and Other Business Nodes**

The new Beijing master plan approved in 1993 proposed to develop a CBD on the city's east side and a financial management centre on the west side (Beijing Institute for Urban Planning and Design, 1993:17). This bifurcation of business centres in the city was, therefore, the result of urban planning and commercial development. To acknowledge Beijing's cultural value, the low-height architectural style and distinctive traditional city layout, as well as many historic sites would be preserved. As early as 1982, the city's master plan set height restrictions for new construction within the three concentric zones. The height of buildings within a distance of 250 m around the Forbidden City was limited to 9 metres and that around the Imperial City to 18 metres. It was suggested that buildings in other parts of the old city should be five or six story-structures, with a maximum height of 45 m (Beijing City Planning Bureau, 1984). These zones of height restrictions created a bowl-shaped urban landscape for Beijing (Gaubatz, 1995; Li, 1996). Without restrictions for building heights, the areas just outside the old city or the Second Circle Road have become the most ideal sites for high-rise commercial development.

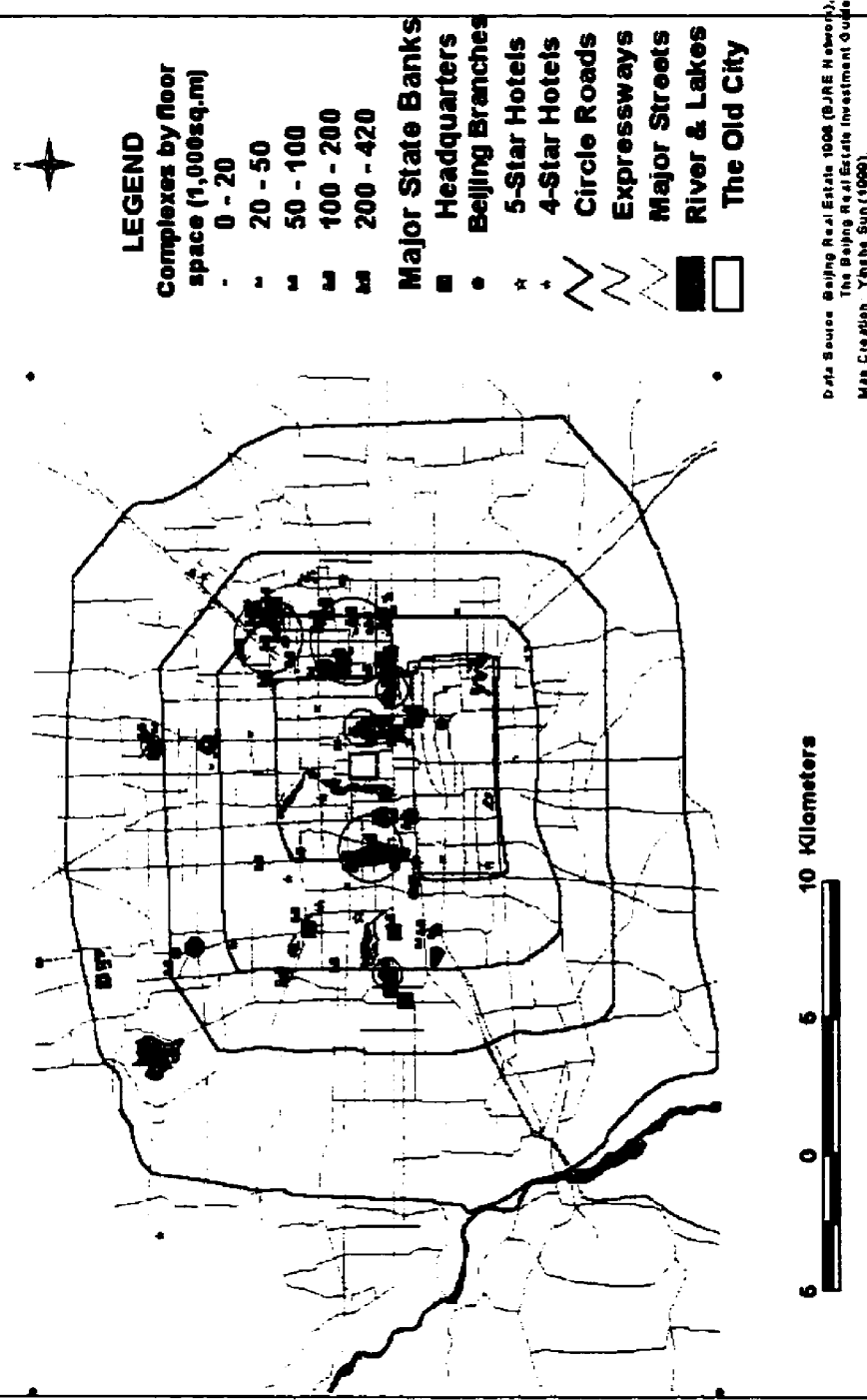
**Figure 6-9 Spatial Distribution of New Commercial Complexes in Beijing (1990)**



**Figure 6-10 Spatial Distribution of New Commercial Complexes in Beijing (1996)**



**Figure 6-11 Spatial Distribution of New Commercial Complexes in Beijing (1998)**



The distribution pattern of commercial-office complexes is the results of interaction of planning efforts and economic forces prevailing in the city. Except for those hotels that were used for offices, the first commercial complex designed specifically for offices was the 59,000 sq.m CITIC (China International Trust Investment Corporation) Tower built in 1985. Since then the number of large office buildings increased rapidly near the CITIC building and along the northeastern Third Circle Road (Figure 6-9). The most spectacular examples are the 53-story Jing-Guang Centre and the 52-story Capital City Building. Rising to heights of 208m and 207m, respectively, both buildings have become the landmarks of the eastern centre. Since the late 1980s, such high-profile complexes have also appeared at several other locations. An example is the Olympic Centre, which was built for the 11<sup>th</sup> Asian Games held in Beijing in 1990 and for the competition to host the year 2000 Summer Olympic Games. The area around the centre that extends northward along the original central axis of the city at the Fourth Circle Road, with its convenient transport and facilities for multipurpose activities, provides space for corporate offices. Commercial development also emerged near the newly-built Beijing Western Railway Station along the Western Third Circle Road and Chang'an Boulevard. Moreover, attracted by the rapid growth of high-tech industry in the BEZDHTI, many high-tech companies have been founded in the Zhongguancun Area (Figure 6-9, 10 & 11). In comparison, all the scattered business nodes are much smaller in size than the planned CBD or the Financial Street.



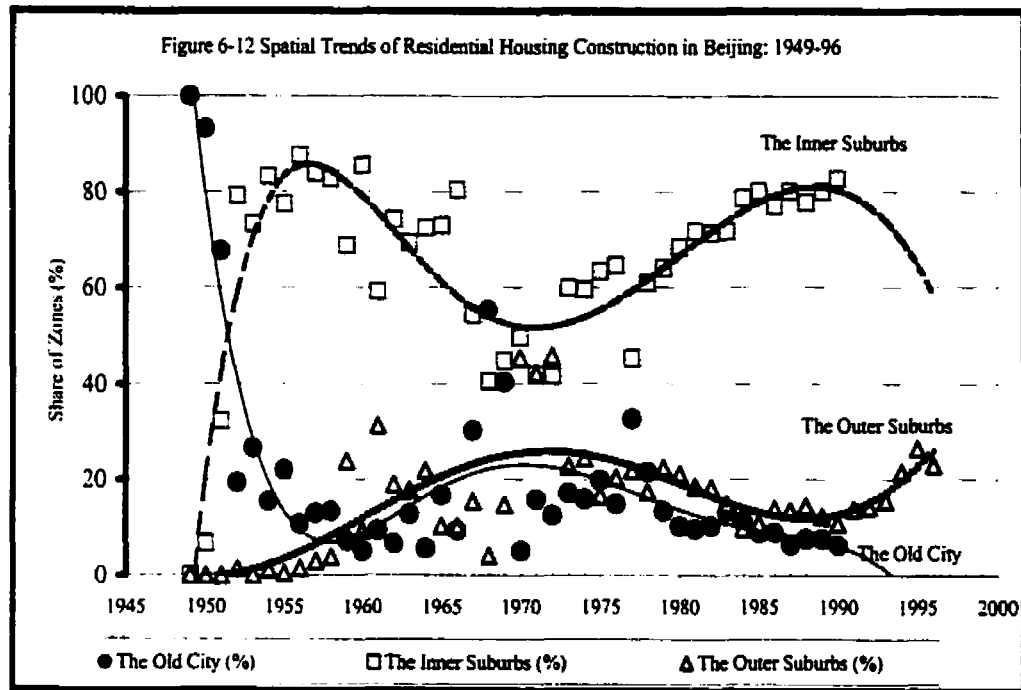
Scattered commercial developments occur in Beijing also due to the present administrative structure. Reforms of the administrative system have redistributed power among the governments at different levels. Attempts to separate administration from business operations have also provided opportunities for enterprise authorities to make decisions. Decisions on economic affairs and on urban construction are made separately by different levels of administration. The municipal government usually handles issues at the city level and tries to provide a balanced development among districts. The local governments, on the other hand, focus construction in their own administrative districts. For example, Beijing's municipal government has established the BETDA and BEZDHTI to absorb foreign investment, but each district still endeavours to launch its own projects. The Dongcheng District actively sponsors its Wangfujing Reconstruction Plan, and at the same time the Xicheng District strongly supports its Xidan Commercial Centre project. Wielding certain power to allocate economic resources, each district strives to form its own centre in its "urban realm" independent of the city centre (Hartshorn and Muller, 1989). Similarly, with permission of their higher authorities, many enterprises also make their own decisions to convert part of their industrial land to commercial uses or lease it to developers. This has caused chaotic urban development in some areas. Decentralisation of decision-making at different administrative levels has led directly to the commercial development in a few locations. On the whole, the spatial process of functional differentiation in Beijing is, without doubt, driven by prevailing economic forces. The planned CBD on the city's east and the Financial Street on the west have increasingly

become apparent, forming a dual-CBD pattern in Beijing. The emergence of this pattern, together with other small business nodes, is a result of the quasi-market economy and the execution of Beijing's urban plan.

#### **6.6 Summary: A Dynamic Model of Urban Structure**

Since the late 1970s, the reform and open-door policies that generated new economic and social forces have transformed many Chinese cities. As a result, changes among urban functions have resulted in the activation of a series of spatial processes in Beijing. Population increased rapidly in the outer zone of the city, but the inner city experienced depopulation. Distinguished from those attempts to suppress urban development in the socialist period, urban expansion in the era of reform, as reflected by the trend of residential housing construction, has led to suburbanization (Figure 6-12). As in other Third World cities, temporary residents/immigrants increased significantly in Beijing and formed peasant enclaves in the urban fringe areas. While development zones or industrial parks have been established, industrial plants were also relocated from the inner urban districts to the outer regions, forming a number of industrial tracts. Moreover, spatial differentiation of urban functions has created several business centres in the city. Mainly driven by foreign investment, a planned CBD on the city's eastern side has emerged as the most spectacular business centre. Meanwhile, liberalisation of the domestic economy, together with implementation of urban planning, has resulted in the Financial Street becoming another major business centre in the city's west. Integration of these processes produces one model showing the dynamic structure of the city (Figure 6-13). The pattern of this dynamic urban

structure displays the complex of concentric zones, sectors, and agglomerations of business and commercial centres.

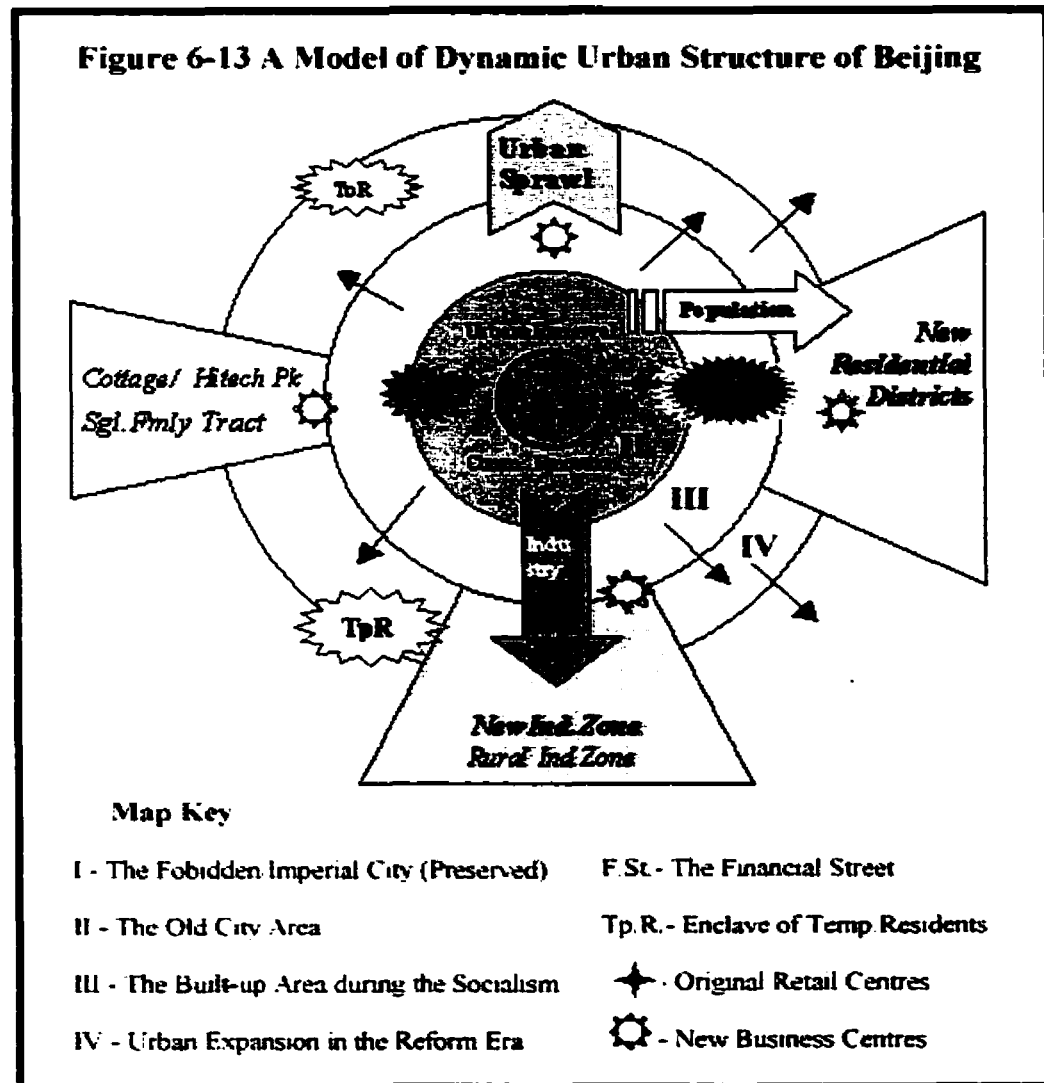


Note: The Inner Suburbs here refers to the four inner suburban districts and the area of the urban districts outside the Old City (the former walled areas). The Outer Suburbs include the outer suburban districts and counties.

Source: 1. *Beijing Urban Construction History Since 1949 - Housing Construction II*, pp.259-60.  
2. *Beijing Statistical Yearbook* 1996, p. 521; 1997, 396.

Urban growth requires space for development at an increasing distance from the city centre, as Burgess elaborated in his concentric zone model. In Beijing, while the walled city of Ming and Qing was planned and developed into zones centred on the Forbidden City, the socialist and the post-socialist urban growth also involved expansion from the interior zone toward the fringe areas. Subject to transportation facilities, the land in proximity to the built-up area is always developed first. In particular, Beijing's circle road network provides equal accessibility from the city

centre. In the long run, the spatial expansion of the city is close to isotropic and represented by a number of growing zones developed in different periods.



The growing zones are spatially different in terms of planning ideas that were based on different political, economic and social combinations during the different periods of development. Both the old city area and the socialist urban space reflect their unique planning philosophies that are entirely different from the current one. Driven by prevailing economic and social forces, the urban functions of these zones

are experiencing further spatial differentiation. This leads to *transformation* of urban functions within zones and *spatial movement* between zones. Consequently, population migrated from the interior zones to the outer zones. Industrial plants are also relocated from the urban district to the outer regions, including the surrounding counties. As a result of increasing commercialization in Beijing, urban land use changes are occurring and continuing to transform the current urban structure. However, in spite of urban redevelopment, the zone pattern emphasized in this study would in no way be diluted in a short time.

The functional zones developed in the early 1950s formed a sectoral pattern of land use in Beijing. The industrial districts in the east, west and south expanded outward from the old city along railways, and occupied different sections of a donut-shaped socialist urban space. Similarly, government departments and various institutions were located in the western part, and the northwestern area was designated as a higher-education sector where over 40 universities and institutes are located. The radial routes and expressways of the road network led to greater accessibility along them and promoted radial urban expansion. The recently sprawling residential areas, and the new industrial districts of the BETDA and BHTIDZ, as well as the peasant enclaves of the temporary residents formed new sectors within the urban space.

Spatial differentiation has created centres of corporate offices and urban commercial activities, among which the most spectacular are the eastern business centre and the Financial Street. According to the new city plan, the eastern centre is expected to become a dominant CBD in the city. The existence of the Forbidden City

in the city centre and the preservation of the old city have hindered the development of a dominant CBD in the central part of the city. The Financial Street, located at the city's west, functions to balance the eastern location of the new CBD. Several other emerging business nuclei will become outlying business centres. As well, as Beijing has expanded horizontally, some previously existing "dispersed clusters" have become focal points for a significant part of the built-up area. The city is becoming multi-centred.

The dynamics of the urban structure of Beijing is reflected by its active *expansion, differentiation, transformation, and movement*. It spatially presents a combination of patterns of concentric zones, sectors, and business-commercial nodes. These processes take place in all types of urban space in the city and lead to a changing urban structure. This current structure manifests the influences of both market forces and urban planning, and it also contains relics of historic development as well as cultural and political-social attributes of the past. While Beijing will continue to evolve, it remains to be seen whether these spatial processes will endure.

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#### Notes:

1. The reform generally indicates the changing policy implemented in China over the past two decades, while the reforms used here refer to economic, social and administrative reform policies.

2. When the reforms were first introduced in the late 1970s, the central government established four Special Economic Zones (SEZs) in Shenzhen, Zhuhai, Xiamen, and Shantou. In 1984, the government opened 14 coastal cities and established an Economic and Technological Development Zone (ETDZ) in each of them. They include Dalian, Qinhuangdao, Tianjin, Yantai, Qingdao, Lianyungang, Nantong, Shanghai, Ningbo, Wenzhou, Fuzhou, Guangzhou, Zhanjiang, and Beihai. The coastal open cities usually include the four SEZ cities and the 14 coastal cities with ETDZs. Hainan province, a more recent SEZ, may also be included into this category.

<sup>3</sup>. *People's Daily (Overseas Edition)*, March 5, 1996 (2).

4. Land markets involve only lease of land, as land is not a commodity in China.

5. "The Announcement of the State Council about the Issues of Agricultural Population Obtaining Household Registration in Towns" (The State Council, 1984, Oct. 13). The Population Research Centre of the Chinese Academy of Social Science, ed. 1986. *China Population Yearbook 1986*. Beijing:

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Chinese Academy of Social Science Press, p. 90. This announcement permits agricultural population who is able to provide its own grains and other foodstuff to move into towns and allows its household registration status to be transferred into non-agricultural population. In practice, the public security departments imprint a blue-chop on the registration form of this type of population in order to distinguish them from the official non-agricultural households which are usually using red-chops.

6. The Second Circle Road in Beijing was first built around the Inner City. It was extended to include the Outer City in 1993. The First Circle Road was proposed in the city's plan in the 1950s. Since it runs along existing streets within the old city and was not built to be a major traffic road as others, the name is rarely used in Beijing.

7. Floor Area Ratio (FAR) is the ratio of the land area occupied by buildings to the total area. This criterion is usually used to measure the development intensity of urban land.

8. Population statistics are collected by the Public Security Department on the basis of residents' household registration, but released by the Statistical Department in its yearly statistical yearbooks.

9. The detailed categories in the fourth population census will be given and discussed in the section of temporary residents later in this chapter.

10. The "dispersed clusters" indicate the 10 island-like urban areas planned and developed during the late 1950. Located in the outer fringe of and around the central city, they were separated from each other by green space or farmland. As a result of urban expansion, those areas gradually became integrated with the central city in the late 1980s.

11. A few misuses were found in the literature. In Sun and Zhang's research, the data of registered temporary residents in the statistics were used for the analysis of "floating population". Also, according to Tu, "transient population" that refers to "the population who temporarily lives and occasionally returns to its registered place of residence" (Tu, 1991:66), might be a translation problem.

12. The fourth national population census recorded five categories of population. Except for those three that were defined as temporary residents, the other two categories are (a) those who lived in the city with their household registrations; and (b) those who lived abroad and whose household registration in the city had been suspended.

13. *Beijing Youth Daily*, 1995, 3, 6 (2).

14. *People's Daily (Overseas Edition)*, 1998, 11, 19(2).

15. *People's Daily (Overseas Edition)*, 1996, 9, 4 (2).

16. *ibid.*

17. *People's Daily (Overseas Edition)*, 1996, 7, 6 (2).

18. *People's Daily (Overseas Edition)*, 1995, 7, 22 (2).

19. *People's Daily (Overseas Edition)*, 1998, 7, 22 (6).

20. *People's Daily (Overseas Edition)*, 1996, 9, 4 (2).

21. *People's Daily (Overseas Edition)*, 1995, 8, 29 (2).

22. Provided by the Government of Beijing City. See the Website: [Http://www.beic.gov.cn/bj-invest/](http://www.beic.gov.cn/bj-invest/).

23. *People's Daily (Overseas Edition)*, 1998, 7, 6 (1).

24. *Guangming Daily*, 1999, 4, 16 (1).

25. The CITIC refers to China International Trust Investment Corporation. It was established in 1985.

26. "The Competitive Trend in China's Insurance Market (Baixian shichang qunxiong zulu dataishi)" *Zhongguo Ribao (China Daily)*, Oct. 14, 1998 (2).

27. *Asian Week (Special Issue)*, 1998.

28. *People's Daily (Overseas Edition)*, 1998, 8, 28 (2).

29. *People's Daily (Overseas Edition)*, 1996, 4, 26 (12).

## **Chapter 7 Market Change and Evolution of Retail Patterns in Beijing**

Urban development has impact on intra-metropolitan retail structure, reflecting in its provision of an physical environment for the retail activity and in the spatial interactions of other urban functions with retail location. Retailing is also an economic sector. Retail change should reflect transformation in the economy and the market. Therefore, this chapter will first review the changes in economic structure and consumer demand and change in retail organizations and institutions. After examining spatial distribution of retail activity among the districts, analysis will focus on the market influencing factors. The final section of this chapter investigates the pattern of major department stores in Beijing and associates it with certain processes and models.

### **7.1 Changes in Economic Structure and Consumer Demand**

#### **7.1.1 Economic Restructuring and Commercialization**

According to the economic growth theory, the service sector will grow faster than other sectors after industrialisation, which will ultimately lead to a service-dominant economy (Kuznets, 1972:1-26; Fik, 1997:85; Berry, *et al*,1997:309-13). With regard to economic restructuring, Beijing's post-reform economy has been transformed from industrial to service dominance. The growth of the industrial sector in the city reached its peak in 1980, with a 42.8% share of total employment. Over the past sixteen years,



Beijing's tertiary sector increased at average annual rates of 4.6% in employment and 13.8% in added values, both of which were much higher than the averages for the total economy (Table 7-1). Since the early 1990s, the service sector has surpassed the industrial sector in terms of both employment and GDP - a milestone in economic restructuring in Beijing.

Commerce in Beijing in the era of economic reforms has undergone change in ownership, distribution channels, pricing system and employment. The share of commerce in GDP increased from 7.9% in 1980 to 11.6% in 1996. Particularly, employment in retailing grew from 159,763 to 609,700 during the same period, with an average annual growth rate of 8.73%. This rate is much higher than both the average of 0.96% in the entire economy and the average of 4.63% in the tertiary sector. This change indicates that commerce has been rapidly expanding within the tertiary sector and that it has begun to function as a major agent in economic restructuring.

Table 7-1 Sectoral Changes in Beijing's Economy 1980-1996

Sector	Primary	Secondary	Tertiary	Totals
Employment (1996) (1,000)	725	2601	3276	6602
Share (%)	10.98	39.40	49.62	100
Avg. Ann. Rate 1980-96 (%)	-3.00	1.43	<b>4.63</b>	1.96
Added Value (1996, billion Yuan)	8.35	68.31	84.91	161.60
Share in GDP (%)	5.17	42.28	52.55	100
Avg. Ann. Rate 1980-96 (%)	8.96	8.44	<b>13.81</b>	9.69

Note: The Added Values are based on current price, while Avg. Ann. Rates are calculated at comparable prices.

Source: *Beijing Statistical Yearbook 1997*, pp. 494-95.

### **7.1.2 Changes in Consumption Structure**

The level of consumption and market size are basically determined by personal or household income. Between 1980 and 1996, the total income per capita of urban households in Beijing increased from 599.4 to 7,945.8 Yuan, while annual net income<sup>1</sup> grew from 501.4 to 6885.5 Yuan. Living expenses per capita correspondingly grew from 490.4 to 5,729.5 Yuan. In 1980 the income and expenditure levels of urban households in Beijing were about 14% and 12%, respectively, higher than those in the country. However, these gaps increased to 57% and 46%, respectively, by 1996. The higher income and increased consumption have led to quick expansion of the retail market in Beijing.

As in many Third World cities, food is a major household expenditure for Beijing's residents, representing 46.6% of the total in 1996. The cost of clothing, cultural and household articles accounted for about one third of the total expenditure, while those of housing, transportation, and medicine and medical equipment were relatively low (Table 7-2). Unlike in the developed countries, most Chinese urban households enjoyed the benefits of low rental housing supplied by the government or work-units. Rent, including utilities, accounted for only 5.0% of average household expenditure.

The expenditure patterns of Beijing's households have changed over time. In 1980 expenses for food accounted for 55.2% of total expenditure. With an increase of income level and decline of the share for food expenses, the expenditure of households has shifted to other consumer goods. Expenditure patterns also vary among income groups.

From the low income group to the high income group each representing 20% of the sample, while the annual per capita expenses in 1996 changed from 3,978 Yuan to 7,948 Yuan, food expenditures have declined from nearly 58% to 38% of the total. Expenses on household articles (e.g. furnishings and appliances) and clothing also varied among the income groups (Table 7-2).

Table 7-2 Expenditure Pattern of Urban Households by Income Groups (1996)

Incomes / Expenditure (Yuan)	Avg. Income	Low Income	Low- medium	Medium Income	High- Medium	High Income
<b>Gross income per capita</b>	7,945.8	4,682.1	6,169.9	7,391.8	9,125.3	12,914.8
<b>Net income per capita</b>	6,885.5	4,012.6	5,464.2	6,596.3	7,835.7	10,979.1
<b>Living expenditure</b>	<b>5,729.5</b>	<b>3,978.6</b>	<b>4,756.9</b>	<b>5,651.8</b>	<b>6,595.5</b>	<b>7,948.4</b>
<b>Share (%)</b>						
1. Food	46.63	57.76	52.37	47.66	43.87	38.19
2. Clothing	14.78	10.44	12.87	14.75	16.12	17.37
3. Household Articles	7.62	6.03	5.59	5.55	8.21	10.9
4. Medical	3.80	3.95	3.89	2.84	3.24	4.86
5. Transportation	4.49	3.13	4.14	5.45	5.18	4.15
6. Recreation & Cultural	12.20	9.09	11.37	12.81	13.61	12.84
7. Housing	5.01	5.65	5.28	5.00	4.43	4.96
8. Other Goods	5.47	3.95	4.49	5.94	5.34	6.74

Source: *Beijing Statistical Yearbook 1997*, p.401.

### 7.1.3 Changes in Consumer Demand

It is clear that demands for consumer goods in China have increased profoundly over the last three decades. In the 1970s, urban residents generally purchased the so-called "three major pieces of consumer goods (*san da jian*)": a watch, a bicycle and a sewing machine. In the 1980s, the "new three pieces" - the most-sought items - were a

television, refrigerator and washing machine. In the 1990s, people wanted fashion goods and greater commodity choice (Table 7-3). And for goods in the same category, the demands evolve. For example, particular demands for television sets changed from black and white to colour, and from a 14-inch screen size to 21-inches or larger. The ownership of black and white TVs per 100 urban households declined from a peak of 86.8 in 1983 to 33.8 in 1995, while the ownership of colour TVs rose from 4.3 to 111.3 per 100 households during the same time. Today many urban families have two or more TV sets. In 1995, there were 147.4 TV sets per 100 households in Beijing. Currently, the best selling televisions have large screens and sophisticated accessories such as Karaoke (Sun, 1997:9).

Changes in urban lifestyle have brought about fundamental changes in the consumer market. Food consumption indicators are changing from quantity to quality. As the percentage of raw food purchase declines rapidly, fast food and nutritious and healthy foods are eagerly sought by a large number of urban families. Clothes, mostly home-sewn in the past, have been substituted by ready-to-wear garments. In 1996 each urban resident in Beijing, on average, spent 847 Yuan on clothing - an increase of 48%, with comparable price, over spending in 1985. At the same time, the percentage of expenditures on fabrics declined from 16.8% in 1985 to 7.8% in 1996. It is now very rare for urban households to sew at home. Some urban youth and high-income earners even prefer clothes of international or Chinese national brands such as Pierre Cardin and Goldlion.

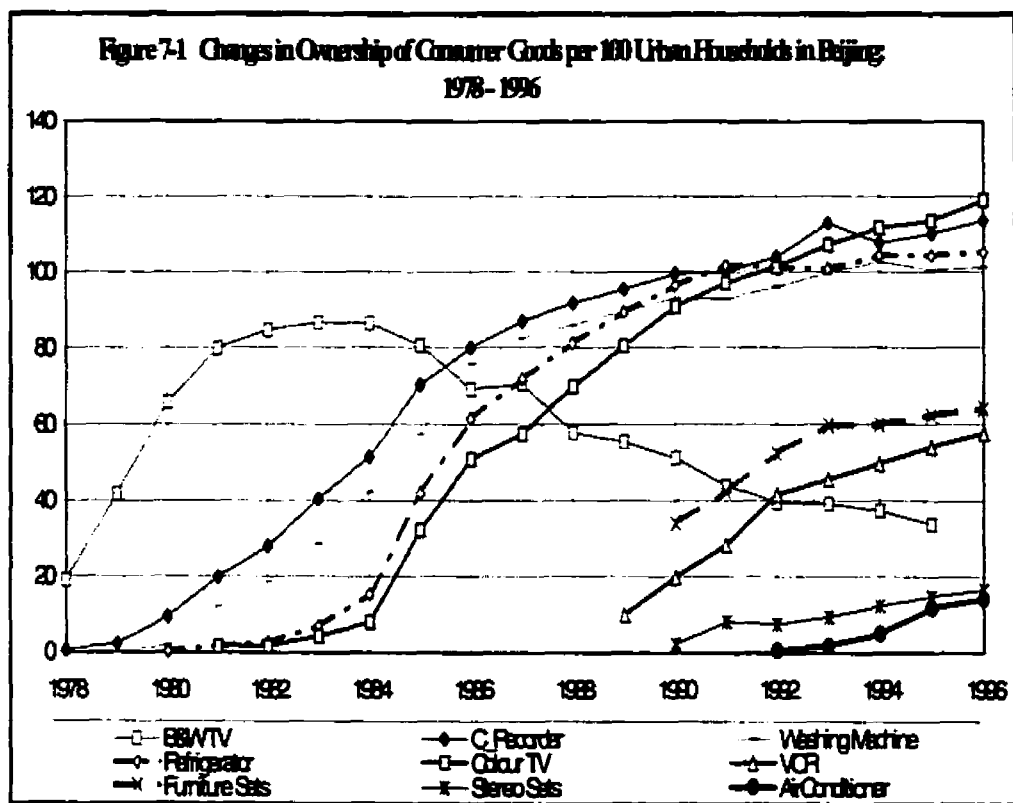
**Table 7-3 Consumption Trends of Urban Families: 1970s - 1990s**

Times		Typical High Status Consumer Goods
1970's		Bicycles, Watches, Sewing Machines, Radios, Simple Furniture
1980's	Early	B&W TV Sets, Electric Fans, Washing Machines
	Late	Colour TV Sets, Refrigerators, Stereo Type Recorders, Furniture Sets
1990's	Early	VCRs, Stereo Sets, Microwave Ovens, Quality Furniture Sets
	Late	Air Conditioners, Camcorders, Telephones, Computers, Large-screen Colour TV Sets (with Karaoke), Cars, Brand Name Clothing, and Gems

Source: Sun, Y. 1997, *Retail Opportunities in the People's Republic of China*, Table 2.5, p.9.

With respect to household articles, people have been purchasing ready-made varieties in order to save time for leisure and recreation. Numerous kinds of beauty products are now readily available and are no longer regarded as luxury goods. Increase of private housing ownership has created a significant demand for various building materials for renovation and home decorating articles for dwelling adornment. Acquisition of some luxury goods, such as antiques, paintings and gems has become a hobby for those with high incomes. The diversity of consumption among over two million urban households in Beijing has become both wide and complex. A consumption gap remains between the rich and the poor, and may even widen. The diverse purchasing power of various income groups will create a more

complicated consumer market. Every group will have its own consumer base, which will support a complex retail structure.



Data Source: *Beijing Statistical Yearbook 1997*, p.505.

## 7.2. Reorganization of the Retail System

### 7.2.1 Changes in the Administrative Organization of Retailing

Retailing in China was administered by the Ministry of Commerce and after 1992, by the Ministry of Domestic Trade. Through the vertical administration of their offices in provinces, cities, and counties, the ministry was responsible for formulating nation-wide retailing policies as well as supervising and administering state-owned retail enterprises. As a result of the reforms, administrative organizations were recently separated from

commercial operations.<sup>2</sup> Under the current policies, all retail enterprises under different ownership operate in a relatively competitive environment.

Ownership of retail enterprises is basically classified into four types: state, collective, private and multiple. State-owned retail enterprises, as a heritage of the planned economy, were controlled by the former Ministry of Commerce and its subordinate organizations. They were fully supported by the government and operated without competition under the past planned economy. This type is still dominant in Beijing's retail sector in terms of the volume of sales and employment. Such establishments include department stores, textiles, hardware, grocery, and grains and cooking-oil outlets. Other state-owned retail enterprises were further divided into three types: (a) those managed directly by state-owned production companies that usually run national wholesale and retail operations. They distribute and sell specific goods such as salt, tobacco, petroleum, aquatic products, medicine and medical instruments. Most of them were and still are the largest of their type in the country; (b) those attached to government departments and operate in the speciality retail sector. They provide goods and services that are closely related to the activities of the government agencies to which they are attached. Examples of such shops include Xinhua bookstores (attached to the Ministry of Culture), newspaper and magazine shops (attached to the Ministry of Post), scientific apparatus (attached to the State Education Commission), broadcast and TV equipment services (attached to the Ministry of Broadcast, Film and Television); and (c) those sponsored by other state-owned organizations and enterprises (Xu, 1993).

Collective-owned enterprises can be divided into two categories. The first group, established in the late 1950s, falls into the General Supply and Marketing Co-operatives. It was created to serve the rural population. Stores of this type operate in the rural-urban fringe area of the four inner suburban districts as well as in the outer regions in Beijing. The second category contains retail establishments sponsored by urban communities and collective organizations serving local residents. In addition, some small state-owned shops changed their ownership and became collective-owned in the mid-1980s.

Multiple-ownership enterprises comprise either Chinese partnership or Sino-foreign partnerships. The latter has been officially permitted since 1992. Private-owned enterprises refer to those owned by individuals or families. They were not permitted to open until 1978. Presently, the volume of their sales represents about a quarter of the total retail sales in Beijing. Both private and multiple ownership retail enterprises have experienced vigorous growth since implementation of the economic reforms.

### **7.2.2 Changes of Retail Enterprises**

Since the tertiary sector reforms at the beginning of the 1990s, the organizational and operational characteristics of retail enterprises have changed profoundly. These changes, as a result of both the introduction of experience from developed countries and adaptation to the transformation in consumer demand, reflect four major trends: enterprise consolidation, emergence of chains, penetration of “new” format stores, and commodity specialization and diversification.



(1) *Enterprise consolidation.* Under the ownership reform of 1991, the largest state-owned enterprises were permitted to form joint-stock companies. In Beijing, the top four retail enterprises, including the Beijing Department Store, Dong'an Plaza, Xidan Emporium, and the Friendship Store became part of this experimental restructuring (Sun, 1997:27). These retail enterprises, by merging with other firms, strengthened their position in the retail market and increased their ability to absorb capital and to invest in other sectors. As a result, all of them became large commercial groups, operating businesses in retailing, wholesaling, transportation, catering, and other services. Another result of this reform was the establishment of several retail outlets within a city or even in several cities.<sup>3</sup> The creation of multiple locations greatly increased the ability of those companies to control the retail market. For example, by merging with several restaurants and factories, the Dong'an Commercial Group, based in downtown Beijing, opened Chang'an, Shuang'an, Xin'an, and Wanhui Shuang'an Department Stores in different parts of the city and Ning'an and Chun'an Department Stores in other cities.<sup>4</sup> Chang'an, Shuang'an, and Xin'an Department Stores, located in the west of the city where few large stores existed, greatly increased the group's regional influence there.

(2) *The Emergence of Chains.* Chain retailing is a new concept to most Chinese even though it existed before socialism in China. Since the first chain store opened in Beijing in 1992, others have been expanding vigorously because of increasing support from both the government and consumers. Given their obvious advantages of mass advertising and integrated goods supply at low cost, the spread of chain stores has gained

official approval by the Beijing municipal government. By the end of 1996, there were 82 chains totalling 980 outlets. Their total sales accounted for 4.1% of those of the city.<sup>5</sup>

As a new form of retail outlet, chains are still in their infancy in Beijing. The types of operation range from regular, voluntary to franchising chains, but many have not established well-accepted regulations. Chains are now operated in four retail categories (Qiu and Yang, 1995; Jiang and Li, 1995).

(a) Convenience store chains. Based on the previous state-run vegetable stores and grains and oil stores, there were 33 convenience store chains with 613 outlets established in Beijing by 1996 (Beijing Statistical Yearbook 1997:4). Providing most daily necessities and operating in long hours (usually 12 hours daily), this type of store is particularly welcomed by urban residents;

(b) Supermarket chains. The potential market in Beijing has led to new domestic and foreign entries. The French retailer Carrefour opened supermarket chains in Beijing and Shanghai in 1995.<sup>6</sup> Ito Yakado of Japan and Makro of the Netherlands, approved by the State Council to open supermarket chains in China in 1996, have established their bases in Beijing;

(c) Specialized goods store chains. Most of the stores in this type operated in the fashion sector as they appeared in China, but now they have extended to marketing a few other specialized goods. Chains such as Goldlion, Bossini, Apple, Crocodile,<sup>7</sup> and Giordano<sup>8</sup> (all based in Hong Kong), Pierre Cardin (based in Paris) and some domestic fashion stores like Lining Sportswear, have opened many shops in Beijing since the mid-1980s. Several years ago, chains selling electronic products entered the retail market. Great-Wall International and Golden Great-Wall, two major computer companies based in Beijing,

established their networks of 28 and 43 stores, respectively, with annual sales exceeding 100 and 150 million Yuan in 1995;<sup>9</sup> (d) Department store chains. The Beijing (Wangfujing) Department Store opened chain stores in other cities.<sup>10</sup> Spring Paris also established its international chain store in Beijing in 1996.<sup>11</sup> The establishment of Chang'an, Shuang'an, Xin'an, and Wanhui Shuang'an Department Stores as well as the recently reconstructed New Dong'an Plaza under the Dong'an Commercial Group fell into the category of primary form of department store chain.

(3) *The Penetration of "New" Format Stores.* Self-service stores (*zixuan shangchang*) or supermarket was introduced into Beijing and a few other cities in the early 1980s. Unfortunately, not long after, most of them were closed due to low profits.<sup>12</sup> Over the past ten years, significant changes have occurred in consumer purchasing behaviour and the shopping environment. At present, in addition to modern shopping malls, warehouse stores have also entered the retail market. As an example of the former, Yansha Friendship Shopping City in Beijing is generally regarded as a new generation of retail format. The latter are exemplified by the Hongdou Common People Store and the Wankro (Wankelong) Parity Store in Beijing, which are successful by their ability to attract low-income customers.<sup>13</sup>

(4) *Commodity Specialization and Diversification.* These are two main trends in the development of retail enterprises in recent years. On the one hand, speciality stores are becoming more and more popular in Chinese cities. In order to distinguish themselves from general stores that lack a product focus, speciality stores concentrate

on select types of goods or brand-name merchandise. They have been widely accepted by high-income earners and some younger consumers who pursue well-known brands, modern style and high-fashion merchandise.<sup>14</sup> In addition, these outlets protect consumers from imitations and poor-quality goods.

On the other hand, diversification of retail services in some department stores represents an attempt to meet the growing needs of consumers for a broader selection of goods and services. Initially, books, magazines, newspapers and some entertainment items were introduced into the product mix to create an environment combining shopping with cultural and entertainment activities. This cultural infiltration of retail activity responds to the changes in the needs of urban consumers and their preferences.<sup>15</sup> Shopping is becoming a leisure activity in cities, resulting from the introduction of the official five-day work week in 1993. In fact, besides functional diversification in those existing retail establishments, most newly-built retail facilities have included other businesses, services, and entertainment functions as part of modern shopping centres.

### **7.2.3 Changes in the Informal Sector: The Case of Vegetable Markets**

The informal sector plays an important role in trade in Third World cities. Distinguished from modern capital-intensive businesses, it represents the most traditional labour-intensive and small-scale commercial activities. The typical forms of informal retailing involve the vending and peddling of goods and services in the street. In Chinese cities, individual hawkers usually gather in or are assigned to certain public spaces to

form urban markets. While most of the markets operate in open space, many are housed indoors. In urban markets, agricultural produce dominates, but now petty goods, handicrafts, and second-hand goods are also sold.

#### 7.2.3.1 Urban Markets in Beijing

Prior to the economic reforms, urban markets, as well as other informal retail outlets, were regarded as a manifestation of capitalism and thus not allowed to operate. They were officially permitted to resume in Beijing in 1979. However, at the beginning, urban markets were very few and small, selling only vegetables and other agricultural products. There were only seven small markets operating in the eight districts of the central city in 1979. This number increased to 41 in 1981, while the share of their sales in the city's total retail sales increased from 0.15% to 0.81% (Jin, 1983; Beijing Commercial Information Centre, 1994:3). The relaxation of control over marketing of vegetables and a few consumer goods by the central government in late 1984 greatly accelerated the expansion of urban markets. The total amount of sales for all districts in Beijing in 1985 sharply increased by 3.23 times that in 1984, accounting for 2.4% of their retail sales (Beijing Social and Economic Statistical Yearbook 1986:422). Since 1985, urban markets have been continuously growing and extending to selling many other consumer goods. In 1996 the number of these markets increased to 757 in the ten urban and suburban districts, and sales reached 38% of the city's total sales (Beijing Statistical Yearbook 1997:523). In particular, the urban markets have dominated in the sales of vegetables, fruits, and aquatic products, and their amount of sales in the urban markets

made up about 90% of the totals sold in Beijing (Beijing Commercial Information Centre, 1994:3; Market Information Department, MA, 1996:33).

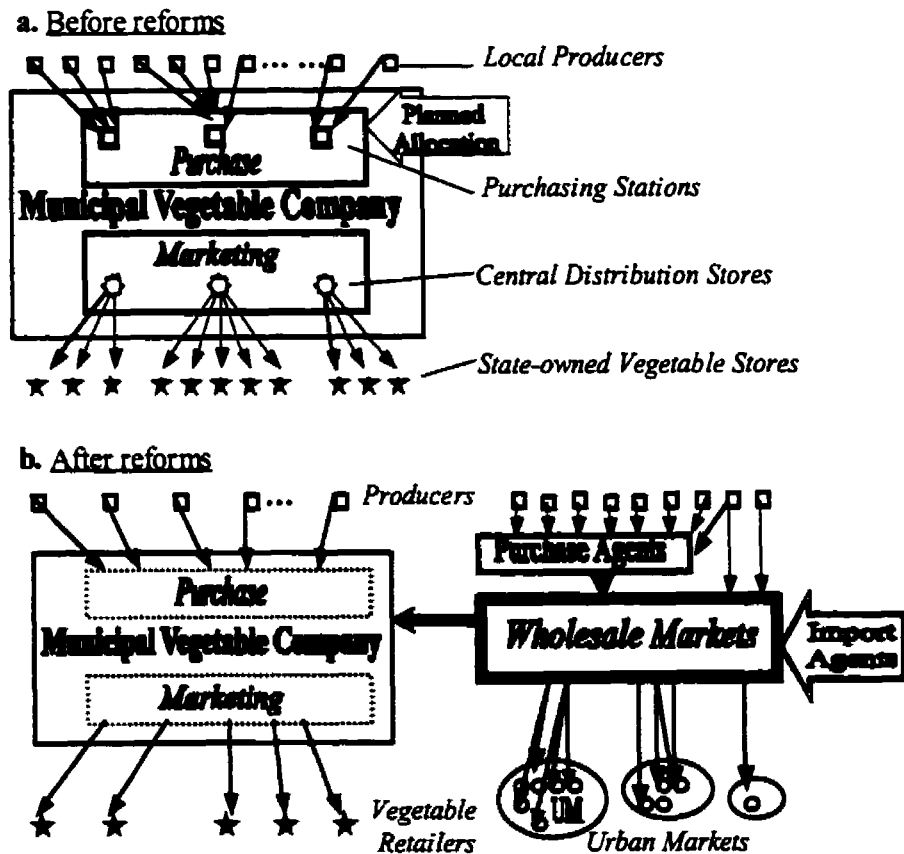
#### 7.2.3.2 Changes of Vegetable Distribution Channels

The vegetable market is chosen as an example of the informal sector in this study because it has experienced the change from a central-planning system to a market-driven economy. Four types of reforms in vegetable production and marketing have been implemented since the early 1980s (Market Information Department, MA, 1996:1). First, vegetable production is no longer controlled by government quotas. Instead, decisions are made solely by the farmers. Second, the state monopoly in the purchasing and marketing of vegetables has been replaced by the free market system. Third, prices of vegetables are determined by demand and supply in the market rather than by government directives as in the past. Fourth, a non-state multiple supply and marketing system has also substituted the sole state-owned retailer. As a result of these changes, vegetable markets, an informal retail sector, have gradually surpassed the state-owned vegetable companies. This informal sector is vital and efficient, characterized by fewer distribution channels, lower costs, vigorous competition, and better services.

Urban vegetable supply and the marketing network generally includes purchasing stations, wholesale, and retail markets. During the socialist period, the Municipal Vegetable Company was the sole operator and performed all three functions. Vegetables had to be bought by the purchasing stations and dispatched to the distribution centres and then to retail stores before they reached the consumers. However, organization of the

vegetable supply system in the post-socialist period is driven by market forces. The core of the system is the urban wholesale market, which effectively links the purchasing agents and the retailers (Figure 7-2). There is no government administrative unit to control these operators and, in fact, 90% of the purchasing agents, wholesalers, and retailers are individual businessmen (Market Information Department, MA, 1996:5). Driven by economic rewards and based on market information, the retailers and wholesalers now form the vegetable marketing network.

**Figure 7-2 Changes in Vegetable Supply System in Beijing**



#### 7.2.3.3 Spatial Distribution of Vegetable Markets

Under the new supply system, the influence of vegetable markets on the urban commercial landscape depends on the locations of both the wholesale and retail outlets. When the markets were first established in Beijing, the municipal government proposed that all vegetable markets should be located farther away from the urban districts in order to prevent their possible disruption of other urban activities. However, this proposal was controversial as consumers expected a convenient service. As a result of compromise, urban markets were allowed in the inner districts and they could be set up at convenient locations permitted by the municipal and district urban planning departments. At present, Beijing's vegetable markets, by and large, are evenly distributed within the urban area.

The wholesale vegetable markets were in operation much later, after the retail markets had grown to a considerable size. Wholesalers not only need more capital and better transportation facilities, but also require efficient organization to obtain supplies and retail market information. This is particularly important for vegetable wholesalers because vegetables are easily perishable. A wholesale market serves as a distribution centre. It collects vegetables from producers outside the city and distributes the produce to retailers within the urban area. Huge amounts of produce and heavy transportation flows require considerable space. For example, the Dazhongsi (the Big Bell Temple) Wholesale Market, the largest in Beijing, had an annual volume of sales of 672 million kg in 1994, and about 5,000 trucks transported the vegetables into the



market everyday (Market Information Department, MA, 1996:8). In addition, transactions usually occur at night, so that retailers can sell fresh vegetables early in the morning. Wholesale activities, therefore, cannot take place close to major residential areas. Thus, the desirable locations for the wholesale markets are close to major road intersections in the suburbs or the urban fringe, which will provide sufficient space for trading and prevent unnecessary disturbance to urban life.

There are eight large wholesale markets handling agricultural products in Beijing, accounting for over 80% of vegetables sold in the city. The Dazhongsi and Yuegezhuang Wholesale Markets, which are located in the city's northwest and southwest, respectively, are much larger than the other six. Established in the 1980s, most of the markets are located along or outside the Third Circle Road that approximately encircled the city's built-up area at that time. According to the Beijing Administration for Industry and Commerce, there were 532 agricultural produce retail markets in 1994, which sold over 90% of vegetables consumed in Beijing. A total of 148,000 stalls operated in those markets and about half of which sold vegetables. On average, each market had about 140 vegetable hawkers. These vegetable markets were fairly evenly distributed. However, the city's inner areas contained more major (relatively larger) retail markets than the outer areas, reflecting the pattern of population distribution. The generalized spatial pattern of urban vegetable markets is shown in Figure 7-3.

## The Spatial Pattern of Major Vegetable Markets in Beijing

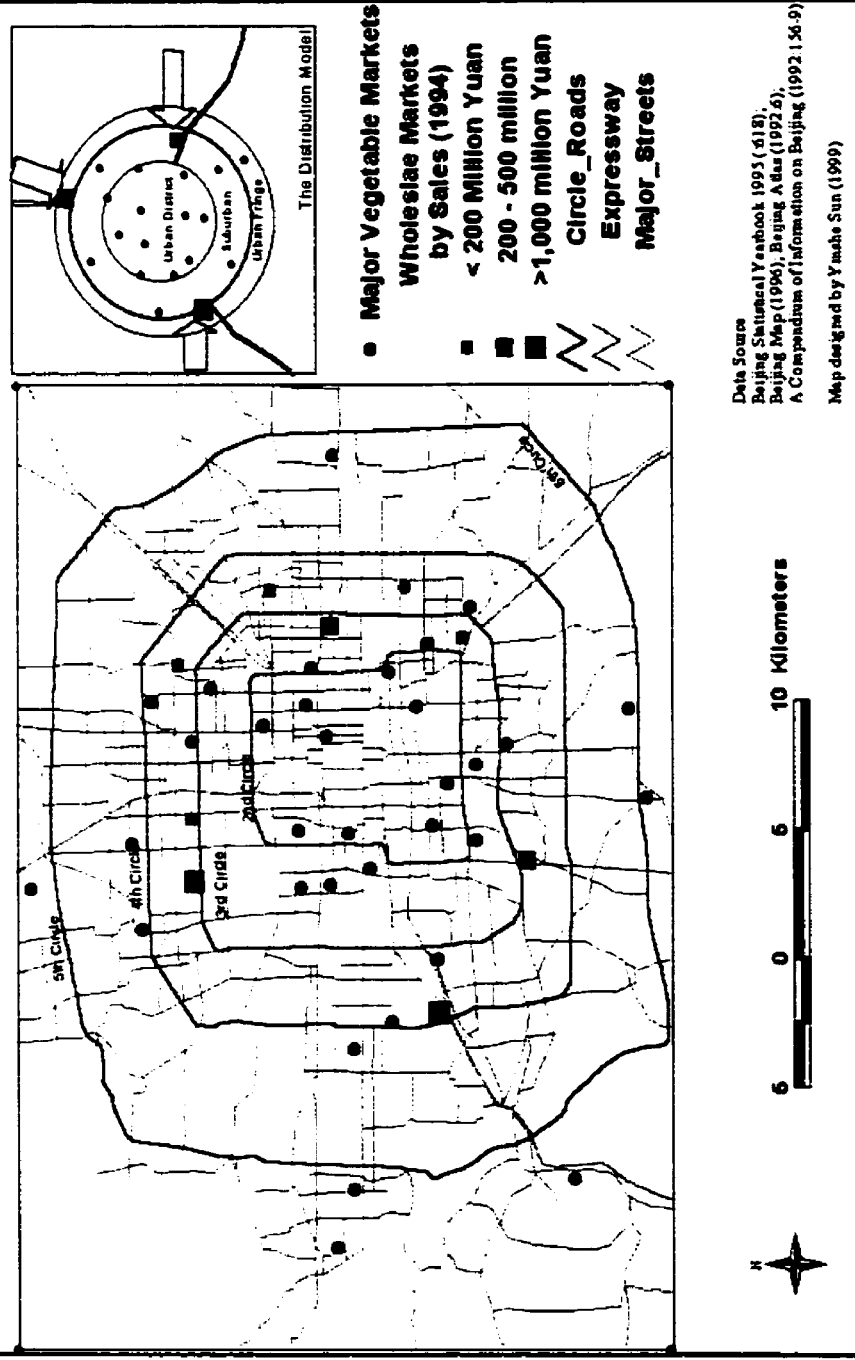


Figure 7-3. The Spatial Pattern of Major Vegetable Markets in Beijing

#### **7.2.4 Changes in Retail Institutions**

Retail institutions range from individual firms or groups of firms to different forms of organization. The term used here refers to an operatively and technically distinctive retail form, such as convenience stores, department stores and shopping centres. Retail institutions in Beijing have undergone significant transformation and diversified during the post-socialist period. The socialist retail forms of the past, which reflected the state and collective dominance of ownership in the planned economy, have been largely diversified. Multiple ownership has resulted in the emergence of a variety of sizes and types of retail firms, particularly those of small and specialized ones. Ever since foreign investors were permitted to establish joint ventures in Beijing, retail facilities in the city have become more luxurious and larger, with more retail functions and services. Concomitant with an increasing number of modern shopping malls, the size of these retail complexes have become even larger due to competition. Some new retail formats, such as chains and discount stores, were also introduced into the national capital. Meanwhile, traditional informal retailing has also grown vigorously. Individual vegetable hawkers share a common urban space with luxurious modern shopping malls. In short, a dual or plural structure has substituted the uniform and uninteresting retail landscape in the city.

With respect to these changes, it is hard to find satisfactory explanations from well-known theories on retail institutions, including the wheel of retailing and retail life circle. The former emphasises entrepreneurial behaviours and management innovations, and the

latter places a major focus on product life cycle. The conflict theory has been applied to interpret the emergence of discount store because it represents the opposite of the increasingly large malls (Hu and Wu, 1994). However, these interpretations ignore the fact that the nature of the theory lies in a crisis-response model (Brown, 1987). Neither of the "contrary" forms faced a challenge from each other or risked failure. Instead, both have shown increases in number at the same time, even though not at the same rate. The environmental theory may be appropriate, since it regards retail institutional transformation as responses to changes of circumstances. According to this theory, the environmental factors support the origin and development of the retail forms and techniques. However, some specific elements of the environmental factors may have greater contributions to retail changes than others. Based on the view of an open system, Roth and Klein (1993) further proposed a theory that modifies the environmental approach. According to this, the retail environment embraces five major elements: the size of the aggregate population and its spatial distribution, consumers' commodity preferences, total income of the population and its allocation, technology, and government policies. Survival of retail stores and how they change over time may be interpreted from the interrelationships of the participants in the retail system and the environment.

Influences of all the above five elements on retail institutional changes can be found in Beijing. Changes in the size of population and its spatial distribution have been discussed in Chapter six, and consumers' commodity preferences have also been

documented in the first section of this chapter. Significant technological progress is evident in intra-city transportation and household refrigeration storage. Redecoration of retail space and facilitation of shopping have increased the attractiveness of stores. Nevertheless, government policies and personal income increases are definitely more important than others. Implementation of the reforms over the past two decades has brought about relaxation of political, economic and social controls. Rapid growth of privately owned stores and the informal retail sector vividly demonstrate the impact of the reform policies. The decision to allow foreign retailers to operate in China was also made by the government. However, all the participants in the retail system, including the large retail groups and street hawkers, are very different in their marketing ability in terms of their capital and the technology available for their operation. Thus, their marketing strategies inevitably lead to diversification in retail institutions. Both increases in the total income of the urban residents and changes in the allocation of those incomes among the population are direct results of the reforms. Prior to the reforms, income gaps among urban households were small. Since the reforms, income disparities among different occupations have been increasingly widened. The average annual wage in Beijing was 9,579 Yuan in 1996. However, the average wages of financial managers in foreign-owned enterprises and in foreign companies' Beijing offices were 156,250 and 164,814 Yuan,<sup>16</sup> respectively. Since the socio-economic transformation, many millionaires have emerged in Beijing. Social stratification in terms of uneven income distribution promotes retail diversification.

Retail activities and their environmental components are distributed over geographic space, which is structured by the administrative hierarchy. The administrative structure, which was omitted in the composition of those environmental factors, may be a barrier affecting retail changes. This element has been given little attention in research, but its impacts on retail institutional change exist. The development of grocery chains in Beijing provides an example. Grocery chains began to develop in Beijing in the early 1990s. Some of the state-owned stores, including those selling grains and oil, foods and vegetables, reorganized into chain stores. As the chains were administrated by the grocery company of the district government,<sup>17</sup> each of those chains belongs to and has outlets in a specific administrative district. For example, Xifu, Liukai, Mingzhu, and Wufu belong to and operate in the districts of Xicheng, Dongcheng, Chaoyang, and Haidian, respectively (Qiu and Yang, 1995). While it is transforming toward an administrative department, the grocery company of the district encourages its subordinate stores to join the district-owned chains but prevent them from joining others. Consequently, the administrative power exerted a great influence on the formation of chains and regulated the organizations of their outlets. Most chains developed their outlets and operated in a specific district, but found difficulties to expanded their outlets in other districts. Xifu, the largest grocery chain in Beijing, has been expecting to expand its outlets in other districts for years. However, the grocery companies of other districts did not allow their subsidiary stores to join Xifu even if their stores were willing to, because Xifu was not under their administration. On the other hand, in order to protect

their own grocery chains, the Administrations for Industry and Commerce of the districts made the procedures and requirements complicated for chains of other districts to open outlets in their territories (Qiu and Yang, 1995). As a result, the administrative structure has retarded the spatial expansion of chains beyond district barriers and thus led to the formation of "urban realms" of retailing.

### **7.3. Spatial Distribution and Changes of Retailing**

Spatial patterns of retail activities can be examined at a variety of geographical scales. For the analysis of intra metropolitan retail landscape, individual retail outlets are the basic geographical elements. The administrative units, which provide the basis for gathering statistical data, show aggregate patterns of retail change. The following section will examine the changing distribution of retail activity among Beijing's districts.

#### **7.3.1 Spatial Distribution of Retail Activity**

While all residents are potential consumers, it is possible to interpret spatial distribution of retail activity by comparing an area's share of retail activity to its share of population. On the basis of this premise, an index of relative concentration  $RC_i$  can be constructed in this study to compare the  $i$  district's shares of retail employment or sales to its share of population in the municipality. Mathematically,  $RC_i$  is calculated using the following formula:

$$RC_i = (A_i / \sum A) / (P_i / \sum P)$$

Where:  $A_i$  is the number of retail employment or retail sales of a district/county, and  $\Sigma A$  is the total number of retail employment or retail sales of the municipality.  $P_i$  is the population of a district/county, and  $\Sigma P$  is the total population of the municipality.

Table 7-4. Relative Concentration of Retail Sales and Employment (1996)

District /County	RC of Retail Sales	RC of Employment	RC of Outlets	Outlet Density (#/Km <sup>2</sup> )	Sales per Outlet (1000Y/Outlet)
Dongcheng	1.512	1.198	0.717	375.79	733.26
Xicheng	1.791	1.193	0.484	249.27	1287.96
Chongwen	1.001	1.377	0.764	406.86	455.73
Xuanwu	0.948	1.113	0.630	425.52	523.43
<b>Urban Districts</b>	<b>1.381</b>	<b>1.208</b>	<b>0.63</b>	<b>347.30</b>	<b>762.34</b>
Chaoyang	0.891	0.858	1.332	83.79	232.62
Fengtai	0.584	1.317	1.315	73.59	154.42
Shijingshan	1.042	1.152	1.439	115.45	251.78
Haidian	1.642	0.875	1.008	68.66	566.48
<b>Inner Suburban</b>	<b>1.105</b>	<b>0.982</b>	<b>1.222</b>	<b>78.37</b>	<b>314.15</b>
Mentougou	0.597	1.62	1.019	3.56	203.68
Fangshan	0.750	0.869	0.907	6.74	287.51
Changping	0.536	0.824	0.693	3.92	268.94
Shunyi	0.867	0.810	1.178	12.04	255.83
Tongxian	0.829	0.767	0.995	12.86	289.66
Daxing	0.611	0.980	1.094	11.10	194.22
<b>Outer Suburban</b>	<b>0.719</b>	<b>0.913</b>	<b>0.983</b>	<b>7.63</b>	<b>254.27</b>
Pinggu	0.471	0.594	1.090	7.20	150.07
Huairou	0.717	0.838	1.155	2.18	215.84
Miyun	0.434	0.645	0.852	2.81	177.18
Yanqing	0.778	1.665	1.046	2.58	258.44
<b>Outer Counties</b>	<b>0.569</b>	<b>0.872</b>	<b>1.019</b>	<b>3.14</b>	<b>194.03</b>

Data Source: *Beijing Statistical Yearbook 1997*, pp.439-490.

As can be seen, RC is the ratio of a district's percentage of retail activity measure to its percentage of population. Therefore, it can be interpreted by using the following



conventions. (1) If  $RC > 1$ , it indicates a relative concentration of retail activity; (2) If  $RC = 1$ , it indicates that the district has an equal share of retail activity and population; and (3) If  $RC < 1$ , it indicates that the district/county has less of a share of retail activity than its share of population.

Table 7-4 tabulates the RC values for retail sales, employment and outlets of all districts and counties in Beijing municipality. Generally speaking, the urban districts have larger RC values in retail employment and sales than the inner and outer suburbs, while the outer counties have the lowest values. Even though RC varies among districts, the aggregate RCs reveal that the concentration of retail activities decreases from the inner urban district zone to the outer county zone. The RCs for the number of retail outlets show a quite different pattern. The inner urban district zone has a very low share in the number of retail outlets, even lower than that in the outer county zone. This is because the huge differences exist in the sizes of retail establishments. Stores in the inner urban zone are more formal and larger in size, whereas many in the outer counties are informal and small. The average retail sale per store in the urban district zone is about four times that in the outer county zone. Therefore, in this case, high RCs only indicate greater numbers of outlets, but do not imply high concentration of retail activities. The density of retail outlets decreases from the inner to the outer zones.

### **7.3.2 Factors Governing Market Distribution: A Multivariate Analysis**

The retail market is usually defined as a set of consumers (Jones and Simmons, 1990:416). Distribution of consumer characteristics or socio-economic attributes in

general will influence retail patterns. Thus a causal relationship between retail indices and socio-economic variables may be established by using regression. Due to the unavailability of disaggregate data for urban neighbourhoods, the regression model will be simulated using district and county samples.

While retail sales and retail employment are dependent variables, market influencing factors may be assumed to involve four categories. The first category of factors contains the attributes of population and employment. Generally speaking, the larger the population sizes, the higher will be the employment rate, and the greater the share of employment in the tertiary sectors, the larger the market size. Income level is the second category of factors influencing the market. Since household income data are not available in China, average wages are used instead. The third category involves investments of both domestic and foreign capital, which are assumed to be an incentive for market expansion. The last category can be regarded as urbanization factors, which mainly comprise the development of service facilities, entertainment places, and other commercial activities. Specifically, the following variables for each district or county are chosen to simulate the models of multivariate analysis (Table 7-5).

Except for two variables, the data for all other variables are obtained from the *Beijing Statistical Yearbook 1997* using 1996 data. The data of variable *\$Entert* were enumerated in 1995. A further explanation should be given to the variables of wages. Data of *Avg-Wage1* are given as a statistical average income of a wage earner, which

Table 7-5 Variables chosen for Multivariate Analysis

<b>Variables</b>	<b>Definition</b>
1. Popu and Popu_Log	Population size of a district/county and its logarithm;
2. Tmp-Pop, Tmp-Pop_Log, and Tmp-Pop%	Number of temporary residents, its logarithm and percentage in total population;
3. NA-Popu, NA-Popu_Log, and NA-Popu%	Size of non-agricultural population, its logarithm and percentage in total population;
4. Tourist, Tourist_Log, and Tourist%	Number of tourists, its logarithm and the ratio to the total population
5. Indu-Empl, Indu-Empl_Log, and Indu-Empl%	Number of employment in the secondary sector, its logarithm and percentage in total employment
6. Tert-Empl, Tert-Empl_Log, and Tert-Empl%	Number of employment in the tertiary sector, its logarithm and percentage in total employment
7. Avg-Wage1 and TT-Wage1	Statistical average wage of all occupations and the total wages in a district
8. Cal-AvgWG & TT-Wage2	Calculated average wage of all occupations and the total wages in a district
9. Invest and Invest_Log	Total investment in a district and its logarithm
10. Fgn-Invest and Fgn-Invest_LG	Amount of investment from foreign counties and its logarithm
11. #Unit	Total number of all units in a district/county
12. CTR-Unit, City-Unit, and Dist-Unit	Numbers of all units administrated by the central, municipal, and district levels
13. Indu-Unit and Tert-Unit	Numbers of all units in the secondary and tertiary sectors
14. #Sport-Entert	Total number of sports and entertainment places
15. \$Entert	Total income of all entertainment places
16. Com-Outlt and Oth-Outlt	Numbers of retail outlets in commerce and other service (non-retailing) sector
17. Com-Empl and Oth-Empl	Number of employment in commerce and other service (non-retailing) sector

is based on working place. Variable Cal-AvgWG is devised as a combination of average wages in industries and employment structure based on residential place. The 1% population sample census in 1995 provides the data on employment structure. Thus, the data of Cal-AvgWG and TT-Wage2 can reflect the income levels by districts and counties, and to a certain extent, they are comparable to the criterion of household income.

Table 7-6 (A, B, C &D) Results of the Stepwise Regressions

**A. Coefficients of Model 1:  $V_{\text{Retail-Sales}} = B_0 + \sum B_i \cdot V_i$**

Variables Entered	Unstandardized coefficients		Standardized Coefficients -Beta	t	Sig.
	B	Std. Error			
#Ctr-Unit	247.296	22.584	0.695	10.950	0.000
Tert-Empl	1.858	.469	0.209	3.962	0.001
Distr-Unit	166.860	56.719	0.160	2.942	0.011
Constant	-96224.2	55474.439		-1.735	0.105

R=0.992, R Sq.=0.983, Adjusted R Sq.= 0.980, Std.Err Est.= 57638.6, F=276.086, Sig.=0.000

**B. Coefficients of Model 2:  $V_{\text{Retail-Sales Log}} = B_0 + \sum B_i \cdot V_i$  ( $\text{Retail\_Sales} = e^{4.539 \text{ TT-WG2} + 0.932 e^{0.0001076 \text{ CTR-Unit}}}$ )**

Variables Entered	Unstandardized Coefficients		Standardized Coefficients -Beta	t	Sig.
	B	Std. Error			
TT-WG2_Log	0.932	0.176	0.661	5.292	0.000
#Ctr-Unit	1.076E-4	0.000	0.343	2.748	0.015
Constant	-0.539	1.097		-0.491	0.630

R=0.955, R Sq.=0.911, Adjusted R Sq.= 0.900, Std.Err Est.= 0.1132, F=276.086, Sig.=0.000

**C. Coefficients of Model 3:  $V_{\text{Employment}} = B_0 + \sum B_i \cdot V_i$**

Variables Entered	Unstandardized Coefficients		Standardized Coefficients -Beta	t	Sig.
	B	Std. Error			
NA_Popu	316.291	123.249	6.219	2.566	0.022
TT_WG1	-7.59E-2	0.033	-5.531	-2.328	0.035
Temp_Popu	86.693	38.584	0.290	2.247	0.041
Constant	11564.87	2305.82		5.016	0

R=0.972, R Sq.=0.945, Adjusted R Sq.= 0.933, Std.Err Est.= 5122.266, F=80.459, Sig.=0.000

**D. Coefficients of Model 4:  $V_{\text{Employment\_Log}} = B_0 + \sum B_i * V_i$**

$$[\text{Retail\_Empl}] = (e^{-1.799} \text{TT-WG2}^{1.117} \text{Oth-Empl}^{0.129} \text{CTR-Unit}) / (e^{-0.0386} \text{Indu-Empl} \% \text{TT-Empl}^{0.53})$$

Variables Entered	Unstandardized Coefficients		Standardized Coefficients -Beta	t	Sig.
	B	Std. Error			
TT-WG2_Log	1.117	0.127	1.141	8.771	0.000
Indu-Empl%	-3.86E-02	0.005	-0.768	-7.109	0.000
TT-Empl_Log	-0.530	0.120	-0.907	-4.425	0.001
Oth-Empl_Log	0.129	0.047	0.201	2.724	0.017
Constant	-1.799	0.624		-2.880	0.013

R=0.955, R Sq.=0.911, Adjusted R Sq.= 0.900, Std.Err Est.= 0.1132, F=276.086, Sig.=0.000

With its ability to discern the contributions of variables in a model, the stepwise regression method was chosen to simulate a linear and a conduct model separately. While the criterion to select variables is the probability of F test less than or equal to 0.05, and those being removed have F tests equal or greater than 0.1, the results of regressions are tabulated in Table 7-6 (A, B, C, & D). Model 1 reveals a strong positive relation between the number of the units administrated by the central government and retail sales. It may be explained that the central government and its subsidiaries have more power in controlling and managing finance and exert influences on retail sales through organizational consumption. In fact, the organizational consumption was about 22.3% of the consumption of individual households in 1996 (*Beijing Statistical Yearbook 1997*:262). This variable reflects the influence of the city as the national capital on consumption patterns. In addition, employment in the tertiary sector and the number of units administrated by district levels also show positive relations to retail sales. While explanation for the latter variable is similar to that above, the former variable illustrates that retailing in general is dependent on the development of the tertiary sector.

Particularly, economic restructuring has led to the emergence of a number of highly profitable tertiary sectors such as banking, insurance, real estate, and communication.

The product model for retail sales reveals two highly significant variables: the calculated total wages and the numbers of centrally-administrated units. It is worthwhile noting that retail sales are closely related to the calculated total wages that is based on residential place rather than the variable that is defined statistically on work place. Given the fact that most consumers go shopping near where they live, the former variable reveals the potential purchase power of a district. In contrast, the latter indicates only the wage earned within a district.

From an economic perspective, retail employment can be understood as the demand for retail services. Models 3 and 4 are two types of simulations for retail employment. Model 3 reveals three variables: non-agricultural population, statistical total wages, and temporary residents. The numbers of non-agricultural population and temporary residents that are positive to retail employment manifest their needs for retail services, even though the influence of the former is much stronger than that of the latter. It is of interest that the amount of statistical total wages shows a negative relationship with retail employment. This indicates that the total earned wages within a district is irrelevant to its demand for retail services, which is perhaps due to the spatial separation of residential neighbourhoods and work places. In some cases, if a district offers a larger number of industrial employment but is short of commercial facilities, it might mean the rapid growth of retail services in another district. In model 4, the positive relationships

between retail employment and the calculated total wages as well as the number of employment in other commercial sectors are easily understood. The percentage of employment in the secondary sector and the number of total employment are reverse to the number of retail employment, which may be the result of competition among economic sectors, as inferred above. In addition, a large number of workers employed in agriculture and in township industries in the outer regions earn low incomes. They contribute to the size of total employment but have much smaller demands for retail services than residents in the inner urban districts.

### 7.3.3 Spatial Changes of Retail Employment

Basically, spatial changes in retail activity can be interpreted in terms of retail sales, employment, and floor space of retail facilities. Subject to data availability, this study will limit itself to spatial change in retail employment only, and an extended shift-share model is used for the analysis.

Before introducing the model, definitions of the variables are needed. Let  $i$  ( $i = 1, \dots, n$ ) be the index referring to the  $n$  industrial sectors in the economy;  $j$  ( $j = 1, \dots, m$ ) be the index referring to the  $m$  districts in the city;  $E_{ij}$  represent the employment in sector  $i$  in district  $j$ ;  $E_{i0} = \sum_{j=1}^m E_{ij}$  be the total employment in sector  $i$  at city level;  $E_{0j} = \sum_{i=1}^n E_{ij}$  be the total employment in district  $j$ ;  $E_{00} = \sum_{i=1}^n E_{i0} = \sum_{j=1}^m E_{0j}$  be the total employment in the city. After a period of time, there is an incremental  $\Delta E_{ij}$  in the employment of

sector  $i$  in district  $j$ . Meanwhile, the change of total employment in sector  $i$  and that in district  $j$  are  $\Delta E_{i0} = \sum_{j=1}^n \Delta E_{ij}$  and  $\Delta E_{0j} = \sum_{i=1}^n \Delta E_{ij}$ , respectively.  $e_{ij}$  is used to represent the percentage change in employment in sector  $i$  of district  $j$ ,  $e_{ij} = \Delta E_{ij}/E_{ij}$ . Accordingly,  $e_{i0}$  is referring to the percentage change in the employment level in sector  $i$ ,  $e_{0j}$  to that in district  $j$ , and  $e_{00}$  to that in the city.

The incremental change in employment in sector  $i$  in district  $j$ ,  $\Delta E_{ij}$  can be broken into three principle components, namely: (1) the *average growth effect*,  $N_{ij}$ , that part of  $\Delta E_{ij}$  attributable to the growth rate of the city; (2) the *industrial mix effect*,  $NI_{ij}$ , that part of  $\Delta E_{ij}$  attributable to differences between the industrial composition of district  $j$  and that of the city; and (3) the *competitive effect*,  $C_{ij}$ , that part of  $\Delta E_{ij}$  attributable to differences in the growth rate of sector  $i$  at both district and city levels. Combining the above three factors,  $\Delta E_{ij}$  may be written as follows:

$$\Delta E_{ij} = N_{ij} + NI_{ij} + C_{ij} \quad (\text{Equation 1})$$

$$\text{where: } N_{ij} = E_{ij} e_{00} \quad (\text{Equation 2})$$

$$NI_{ij} = E_{ij} (e_{i0} - e_{00}) \quad (\text{Equation 3})$$

$$C_{ij} = E_{ij} (e_{ij} - e_{i0}) \quad (\text{Equation 4})$$

In this study, the shift-share analysis method adopted is an extended version proposed by Arcelus (1984), which breaks down the competitive effect ( $C_{ij}$ ) into two components: the *regional (district) growth effect* ( $R_{ij}$ ) and the *regional(district) industrial mix effect* ( $RI_{ij}$ ).  $R_{ij}$  and  $RI_{ij}$  are the district counterparts of  $N_{ij}$  and  $NI_{ij}$ ,



representing that part of  $\Delta E_{ij}$  attributable to the growth in district  $j$  and to the district industrial mix, respectively. In order to decompose the above components, the concept of homothetic employment is incorporated. The concept of homothetic employment ( $\hat{E}_{ij}$ ) is defined as the employment that sector  $i$  in district  $j$  would have if the structure of employment in a district were equal to the city structure, that is,  $\hat{E}_{ij} = E_{0j}E_{i0}/E_{00}$ . Thus, component  $C_{ij}$  is replaced by  $R_{ij}$  and  $RI_{ij}$ , which are expressed as:

$$R_{ij} = \hat{E}_{ij}(e_{0j} - e_{00}) + (E_{ij} - \hat{E}_{ij})(e_{0j} - e_{00}) \quad (\text{Equation 6})$$

$$RI_{ij} = \hat{E}_{ij}[(e_{ij} - e_{0j}) - (e_{i0} - e_{00})] + (E_{ij} - \hat{E}_{ij})[(e_{ij} - e_{0j}) - (e_{i0} - e_{00})] \quad (\text{Equation 7})$$

The results of applying the shift-share model to the analysis of retail employment change in Beijing are found in Table 7-7. After examining the components of retail employment changes, five observations can be made: (1) All the districts and counties experienced increases in retail employment. Generally speaking, the urban districts had the smallest increase, and the inner suburban districts the greatest increase. Dongcheng District, which contains the city's largest retail centre Wangfujing and other commercial nodes, had the lowest growth rate. In contrast, Fengtai District, where rapid urban sprawl occurred over the past two decades, had the highest growth rate. (2) The *average growth effect* exerts a much greater influence in the urban districts than in other districts. On average, it made the smallest contribution to the change in the inner suburban districts. (3) The *industrial mix effect* contributes most of the growth in all districts as well as the municipality as a whole. Similar to the *average growth effect*, it made the greatest impact to the urban districts but the

Table 7-7 The Shift-Share Analysis of Retail Employment in Beijing:1985-1996

District	$\Delta E_{Retail}$	$\Delta E_N/E_{R85}$ (%)	% of $\Delta E_{Retail}$			$C_{ij}$	
			$N_{ij}$	$NI_{ij}$	$C_{ij}$	$R_{ij}$	$RI_{ij}$
Dongcheng	3258	7.87	76.34	1381.17	-1357.51	-47.51	-1310
Xicheng	21133	66.04	9.10	164.58	-73.68	25.96	-99.64
Chongwen	11587	52.67	11.41	206.37	-117.78	-66.38	-51.40
Xuanwu	9737	37.45	16.04	290.23	-206.28	-68.24	-138.03
<b>Urban Districts</b>	<b>45715</b>	<b>37.66</b>	<b>15.95</b>	<b>288.64</b>	<b>-204.6</b>	<b>-19.28</b>	<b>-185.31</b>
Chaoyang	47180	181.46	3.31	59.9	36.79	3.95	32.84
Fengtai	48589	303.68	1.98	35.79	62.23	-2.65	64.88
Shijingshan	15641	254.82	2.36	42.65	54.99	17.70	37.29
Haidian	40086	121.47	4.95	89.48	5.58	16.24	-10.67
<b>Inner Suburbs</b>	<b>151496</b>	<b>186.71</b>	<b>3.22</b>	<b>58.21</b>	<b>38.57</b>	<b>6.34</b>	<b>32.23</b>
Mentougou	15724	262.07	2.29	41.47	56.23	-8.68	64.91
Fangshan	20688	147.77	4.07	73.55	22.38	0.74	21.64
Changping	12199	203.32	2.96	53.46	43.59	-4.93	48.52
Shunyi	14364	159.6	3.76	68.10	28.13	-3.15	31.28
Tongxian	13818	125.62	4.78	86.53	8.69	-6.66	15.35
Daxing	17973	163.39	3.68	66.52	29.8	-2.23	32.03
<b>Outer Suburbs</b>	<b>94766</b>	<b>166.26</b>	<b>3.61</b>	<b>65.38</b>	<b>31.01</b>	<b>-3.99</b>	<b>35.00</b>
Pinggu	5151	73.59	8.17	147.71	-55.87	-3.74	-52.13
Huairou	4635	66.21	9.07	164.15	-73.23	-0.58	-72.65
Miyun	8294	138.23	4.35	78.63	17.02	-2.50	19.52
Yanqing	17455	290.92	2.07	37.36	60.57	-5.90	66.47
<b>Outer Counties</b>	<b>35535</b>	<b>136.67</b>	<b>4.40</b>	<b>79.53</b>	<b>16.08</b>	<b>-3.94</b>	<b>20.02</b>
<b>Municipality</b>	<b>327512</b>	<b>114.7</b>	<b>5.24</b>	<b>94.76</b>	<b>0</b>	<b>0</b>	<b>0</b>

Data Sources: 1. *Beijing Statistical Yearbook 1997*, pp.439-90.2. *Beijing Social & Economic Statistical Yearbook 1986*, pp.603-686.

smallest to the inner suburban districts. (4) The *competitive effect* had influences spatially in reverse to the above two effects. The values of this component in the four urban districts shows exclusively negative, which represents the least potential for further growth there. The influences of this effect vary among other districts and

counties. However, the inner suburban districts, by and large, are more competitive.

(5) The decomposition of the competitive effect leads to the difference between the inner suburbs and the outer zones. Except for Fangshan with a slight growth, all other districts and counties in the outer zones had negative *regional (district) growth effects*. Most inner suburban districts show strong *regional (district) growth* trends in retail employment.

## 7.4 The Changing Retail Patterns

### 7.4.1 Distribution of Retail Outlets: The Nearest Neighbour Statistic *R*

In a non-socialist society, locations of retail facilities usually are decided by both the developers and urban planning. In order to let their clients obtain greater profits, developers have different spatial strategies in retail outlet location selection. Typically, department stores tend to be located near each other as the result of their adoption of an active competition strategy (Jones and Simmons, 1987:336). Contrarily, convenience stores have their specific trade areas and hence tend to avoid each other.

To examine the spatial patterns of retail outlets in Beijing, the measurement of the Nearest Neighbour Statistic *R* will be used. The *R* statistic is computed by dividing the actual mean distance to the nearest neighbour point ( $\bar{D}_{obs}$ ) by the expected mean distance for a random point pattern ( $D_E$ ). Mathematically, the *R* statistic can be

calculated through the formula:  $R = \frac{\frac{1}{n} \sum_{i=1}^n D_i}{\frac{1}{2} \sqrt{\frac{a}{n}}}$ , where: *n* is the number of the points and

$a$  is the area of the region. The results of applying the nearest neighbour statistic to the distribution of the major department stores and food stores (with 50 employees or more) in Beijing are tabulated in Table 7-8.

Table 7-8 Statistic R by Store Types in Beijing

Type of Stores	$R^{[a]}$	# of Sample ( $n$ )
Major Department Stores 1987	<b>0.6053</b>	232
Major Department Stores 1996	<b>0.5761</b>	296
Major Department Stores 1996 <sup>[b]</sup>	<b>0.5811</b>	232
Major Food Store 1996	<b>0.5180</b>	215

Note: a. The area ( $a$ ) for all statistic R calculations is 918,736,907.01  $m^2$ , or 918.7 sq. km.

b. The first 232 stores were chosen in order to have the same sample size as in 1987.

Data sources: 1. *The Million-enterprises Database*, the Meilande Consulting Company of China, 1998.

2. *The Commercial Census Data of Beijing City (the volume of enterprises)*, 1989.

The results show that the distribution of major department stores in Beijing basically is clustering. Compared to 1987, the distribution in 1996 was increased clustering. In order to avoid the influences on the values of R due to changes in the number of the sample and the area selected, all the measurements were taken in the same area, and an alternative sample, which selected the same number of the largest stores in 1996 as that in 1987, was adopted. The R statistic of the alternative measurement also supports the above conclusion and verifies the original hypothesis. Observations by field survey found that the major department stores had formed clusters of retail centres or commercial strips in the urban districts, but were generally free standing at different locations in the inner suburbs before and even in the early

1980s. In recent years, newly-built department stores began to appear nearby or close to the original free standing outlets, which have largely reduced the distances to their nearest neighbours and the R value.

The test for the distribution of food stores shows a very low R statistic, even lower than that of department stores, which is contrary to the original hypothesis. However, this does not mean the hypothesis is false. Rather, the problem occurs because of the size structure of food stores and the sampling. As a product of the socialist planned economy, food stores usually are divided into specific types: grains and cooking oil, vegetable, grocery, food, and fruit stores. Most food stores are small in size, in terms of both employment and sales. A few with a large number of employees are general food stores and typically located in the urban districts where consumers are more numerous and concentrated. Therefore, even a dispersed distribution of the large food stores in the urban districts may be somewhat concentrated in the selected area. In this case, the boundary effect becomes crucial. However, given the huge number of food stores, it is impossible to include all of them in this analysis.

Another limitation of the nearest neighbour statistic is that it ignores the size differences of stores. Some large stores with several thousand employees were treated the same as small stores. In reality, their functions and trade areas are quite different. Therefore, it is necessary to examine the size of stores, particularly the spatial distribution of the largest ones.

### 7.4.2 Changes in the Size and Hierarchy of Department Stores

The size of stores may be defined in terms of their retail sales, number of employees or floor space. As retail sales vary greatly among different types of stores due to differences in profit rate and the volume of sales may vary over the years due to inflation, the number of employees is, therefore, an appropriate criterion to measure store size. According to the *Beijing Statistical Yearbook*, there were 198,931 retail outlets and 609,700 employees in the municipality in 1996, with an average of 3 workers per outlet. Among the major types of retail outlets, drugstores, hardware, and department and general stores on average had greater numbers of employees. The same data source shows that the average of all types was 14.6 employees per store in 1980 and 5.5 in 1987 (Table 7-9). This decline of average store size was caused by the rapid increase in the

Table 7-9 Changes in Average Store Sizes by Retail Types 1980-1996

Types of Stores	Avg. # of Employees (1980)	Avg. # of Employees (1987)	Avg. # of Employees (1996)	Increased Times in # of Outlets	Increased Times in # of Employees
Foods	17.02	3.25	1.94	22.72	1.70
Clothing & Textiles	53.5	7.71	2.19	1115.83	44.66
Dept. & General	43.94	8.86	5.26	43.40	4.31
Daily-use Articles	23.32	6.27	4.21	14.59	1.81
Hardware	N/A.	N/A.	9.31	N/A.	N/A.
Drugs	20.37	18.06	17.12	1.24	0.91
Books& Magazines	11.80	5.08	3.17	11.00	2.22
Total	14.59	5.51	3.06	10.07	2.82

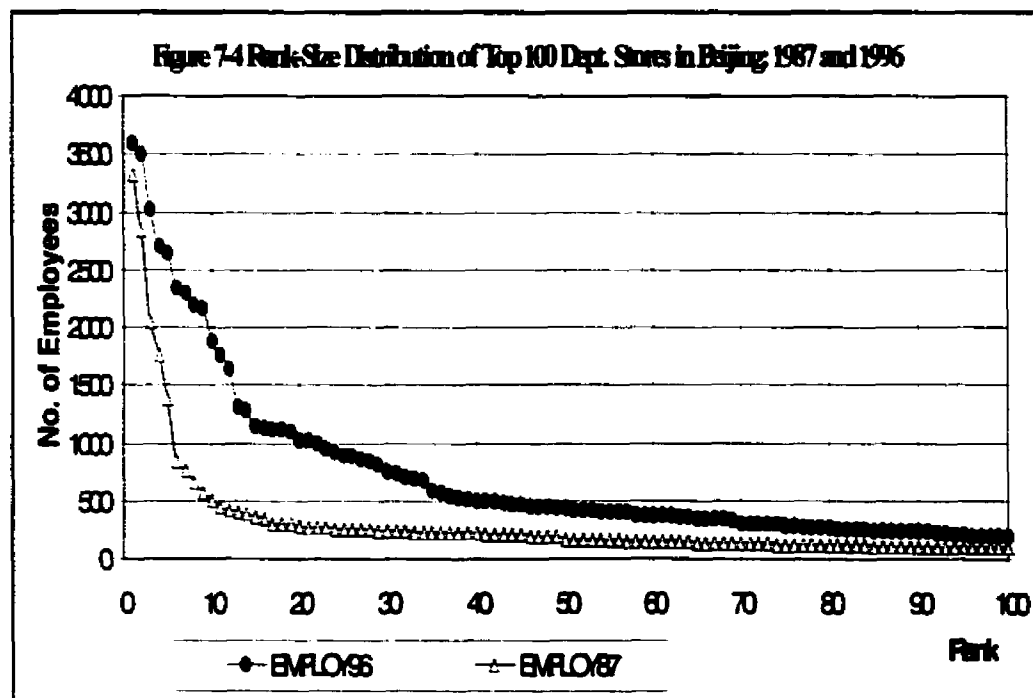
Sources: 1. *Beijing Statistical Yearbook 1997*, p.290.

2. *Beijing Economic and Social Development 1981-85*, p. 194.

3. *Beijing Social & Economic Statistical Yearbook 1988*, p. 464.

number of stores, particularly the small ones. In fact, during that period, the total numbers of retail outlets and employees in Beijing increased 10 and 2.8 times, respectively. Department and general stores had higher increases in both the number of outlets and employees, leading to a sharp decrease in their average size.

However, the sizes of individual department stores were growing rapidly. The Beijing commercial census data show that there were 10 stores with over 500 employees in 1987. According to the Beijing Statistical Yearbook, this number increased to 40 in 1996 (Table 7-10). Figure 7-4 also indicates that there were significant changes in the number of employees among the top 100 department stores, although the largest two remained at the same rank. The change of store size was also reflected in the volume of retail sales. In 1990, Beijing had only five department stores whose annual sales exceeded 100 million Yuan. If inflation is not taken into



consideration, the number of such department stores rose to 13 in 1992, 38 in 1994, and 43 in 1996 (*Beijing Statistical Yearbook 1997:272*). If measured by floor space, there were 6 stores each with over 10,000 square metres in 1987, and 40 by 1994 (*Beijing Almanac 1995:370*). This number increased to 64 in 1996. On average, each had 21,000 sq.m of floor space (*Beijing Almanac 1997:366*).<sup>18</sup> Lured by high potential profits, real estate developers vigorously invested in large retail facilities. When supply exceeded demand, some of these large stores began to lose money.<sup>19</sup>

Table 7-10 Size Comparison of Major department stores in Beijing: 1987 and 1996

No. of Employees	No. of Stores in 1987	No. of Stores in 1996	% of Increase
>1,000	5	21	320.0
500 - 1,000	5	19	280.0
300 - 500	8	31	287.5
100 - 300	82	92	12.2

Sources: The Beijing Store Database (1996) was created by the author of this study. Data of stores were obtained mainly from the following three sources: (a) *The Beijing Commercial Census Data (the volume of enterprises)*; (b) *The Beijing Statistical Yearbooks 1997*; and (c) The Million-enterprise Database (1998), created by the Meilande Consulting Company of China.

### 7.4.3 The Distribution Pattern of Retail Centres

Retail stores operating with an active competition strategy tend to agglomerate in retail centres. However, *retail centre* is often described as an equivocal term in the literature (Ning, 1984; Gao, 1987; Yang, 1990; Long, 1992). Unlike shopping centres or malls in North America, the so-called retail centres in Chinese cities usually take the shape of shopping strips. The concept of retail centre that is generally accepted by



the residents in Beijing and other Chinese cities actually implies a group of retail establishments distributed along streets and anchored by one or more large or medium-sized department stores. Since stores usually are distributed in a spatial continuum along a strip, the geographic extent of the retail strip and its size have never been properly defined. For example, the Wangfujing retail centre refers to the retail establishments located along Wangfujing Street, where they are anchored by the Beijing Department Store, Dongan Plaza, and a number of large speciality stores. However, the definition for the Wangfujing Retail Centre varies. It could include the section of the Wangfujing Street from Chang'an Boulevard in the south to Donghuamen Street in the north. It is 780 m long and contained about 90 major stores in the early 1990s. It may also indicate the section of the street measuring 1,130 m long further north to Dengshikou, with about 140 stores. This section contained most of the retail facilities in the Wangfujing street. The greatest extent of the retail centre could extend north to the Chinese Art Gallery, having a length of 1,760 m and containing about 170 stores.<sup>20</sup> As a result, the exact size of the retail centre has not been determined. Even though there are problems in defining the area of retail centres in Chinese cities, this term will still be used in this analysis. However, comparison of the size of retail centres will be done in an alternative way.

Retail centres are organized into a hierarchy characterized by both their sizes and levels of functions. Department stores typically perform the highest-order retail functions and form the most significant retail landscape within a retail centre. They

provide useful indicators to the analysis of hierarchy of retail centres. Generally speaking, the size of a department store can reflect its functional level due to their direct relationship. Of course, a free standing large department store can hardly be regarded as a retail centre in the conventional sense. On the other hand, even when a large department store is absent, the presence of a variety of high-order speciality stores may constitute a retail centre. However, except in a few such cases with a variety of backgrounds that will be examined individually, most widely-recognized retail centres in Beijing have an anchor department store.

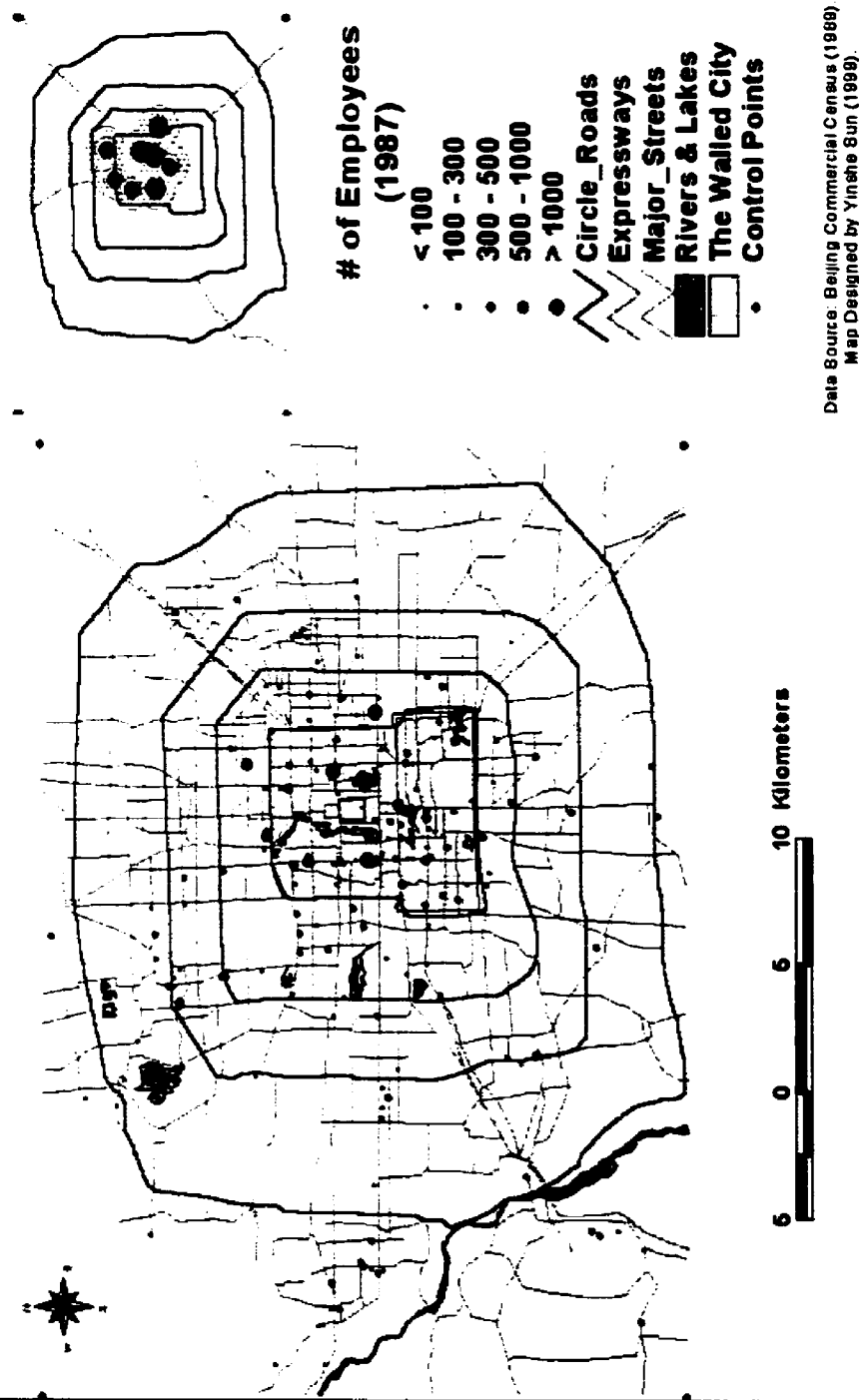
On the basis of the above discussion, the analysis first investigates the largest department stores, those with 500 or more employees. The number of stores in this category is small, but their function levels and influences are high. In 1987 there were five department stores with over 1,000 employees. While the Beijing Department Store and Dong'an Plaza were the top anchors of the Wangfujing retail centre, the Xidan Emporium and Longfu Emporium were the leading stores at the Xidan centre and the Dongsì centre, respectively. These four were all located at the traditional retail centres within the old city area. The Friendship Store, built in the early 1970s to serve the international community in the embassy quarter, was the only one located outside the original walled-city area. There were four department stores with employees between 500 and 1,000, among which two were located at the retail centres within the old city area, Qianmen and Xinjiekou, and another two in the area developed during the 1950s and 1960s. In addition, among the eight stores with 300 to 500 employees,

only two were located within the district administration-service centres outside the old city area. Those department stores with fewer than 300 employees displayed a relatively scattered pattern. On the whole, the large department stores were still highly concentrated inside the old city area by 1987 (Figure 7-5 and 7-6).

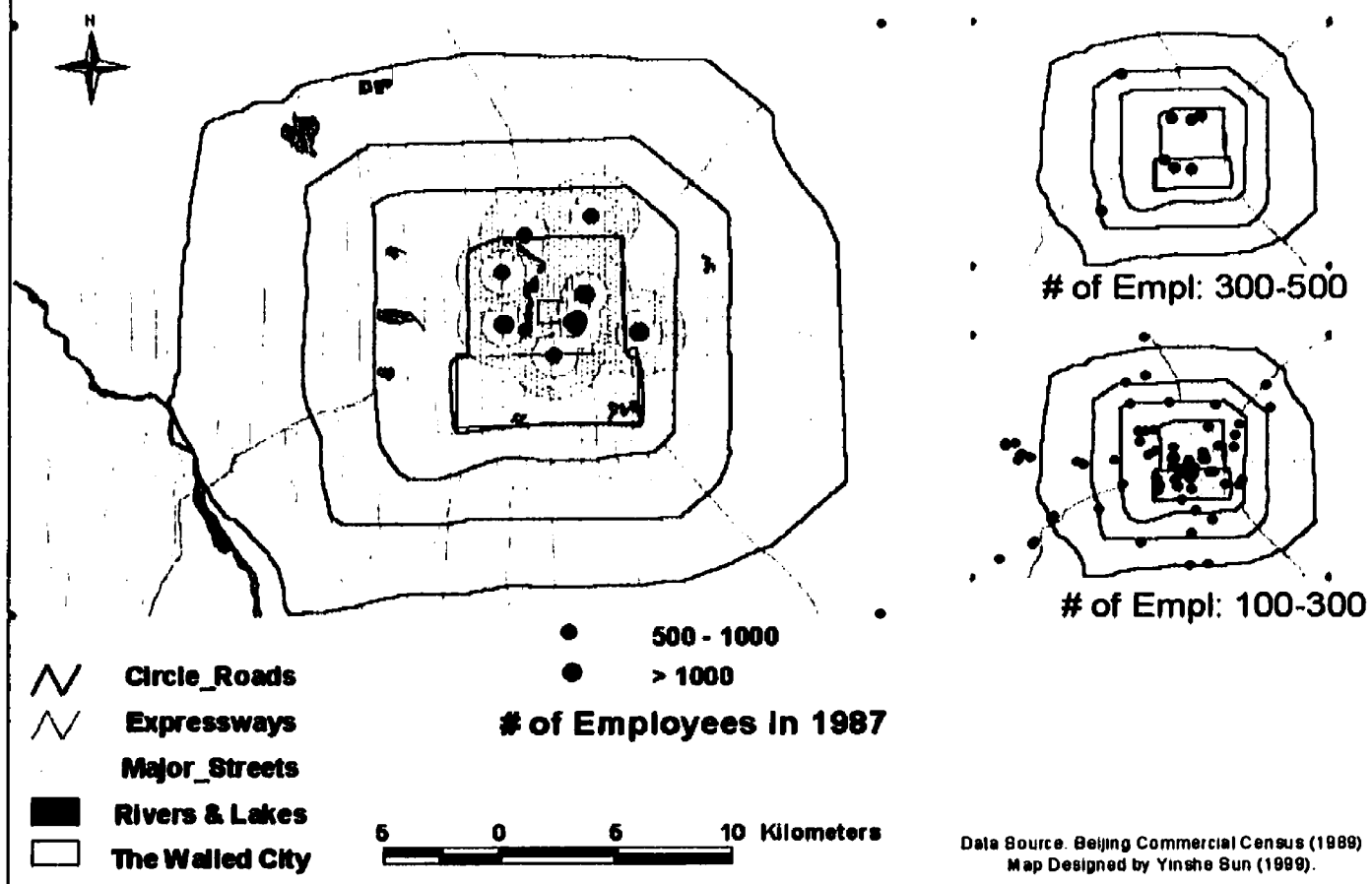
By 1996 the distribution pattern of major department stores had changed significantly. First, of the 21 stores with more than 1,000 employees, 12 were located outside the Second Circle Road or the old city area. For stores with between 500 and 1,000 and between 300 and 500 employees, the old city area and the outside region shared almost an equal number, while the latter had a slightly higher number (Figure 7-7 and 7-8). Thus, the old city area was no longer dominated by the largest stores, even though retail activities still highly concentrated there.

Led by the rapid growth of large department stores, retail centres/nodes outside the old city area also expanded in size and gradually became more conspicuous. The most significant retail nodes along the Second Circle Road include Jianwai (outside Jianguomen), Chaowai (outside Chaoyangmen), and Fuwai (outside Fuxingmen). The Jianwai node was anchored by three very large department stores, the Friendship Store, the Guiyou Emporium, and the Scitech Shopping Mall, as well as many stores affiliated with office complexes, including the China International Trade Centre. Those retail outlets serve mainly international consumers. The Chaowai node, situated at the north end of the emerging CBD, contains the Blue Island (*Landao*) Emporium, the Donghua Department Store, and the Beijing Commercial Friendship Building, as

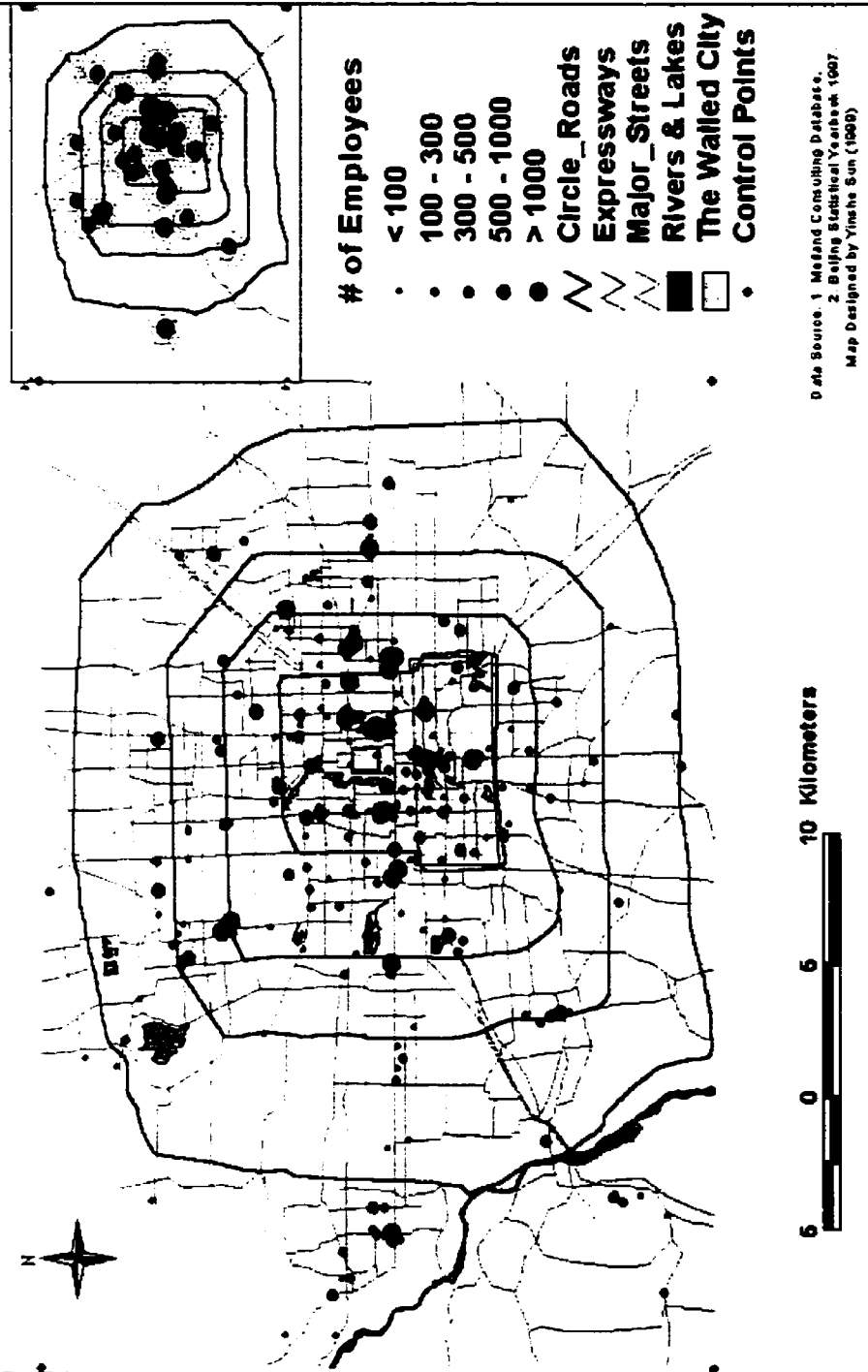
**Figure 7-5 Distribution of Major Department Stores in Beijing (1987)**



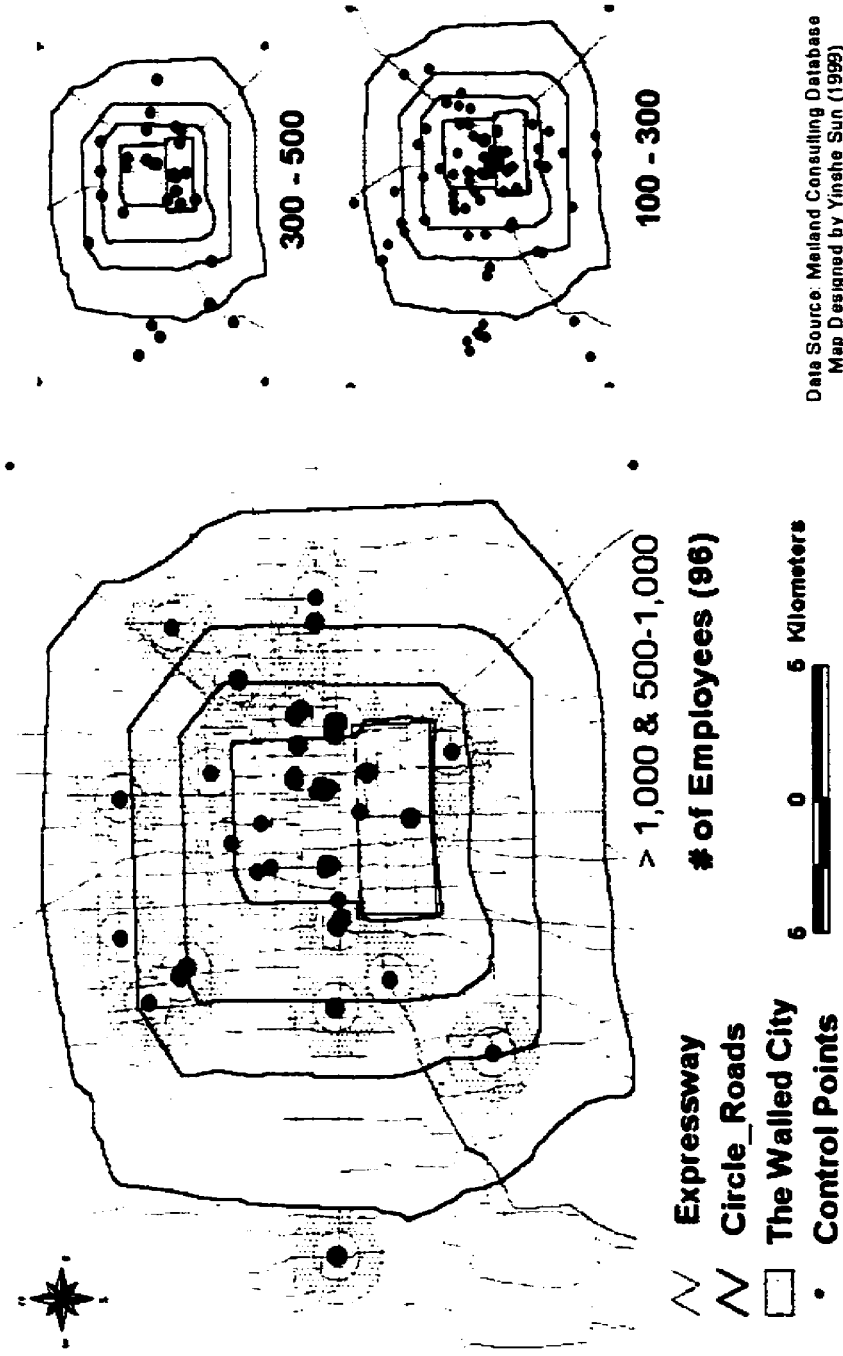
**Figure 7-6 Distribution of Major Department Stores by Size (1987)**  
(By Number of Employees)



**Figure 7-7 Distribution of Major Department Stores in Beijing (1996)**



**Figure 7-8 Distribution of Major Department Stores by Size (1996)**



well as several newly-built large retail facilities. In the Fuwai area, the Fuxing Commercial City, the Parkson (*Baisheng*) Shopping Centre, and the Changan Emporium form a triangle. Being separated by the Second Circle Road and Changan Boulevard, they are still close to one another. Along the Third Circle Road, major department stores agglomerate at three locations. Proximal to the northeastern Third Circle Road is the Yansha Friendship Shopping City (*Yansha Youyi Shangcheng*), the most luxurious European style shopping mall in Beijing. Around it there are some other stores as well as many attached to the newly-built office towers and high-class hotels. The northwestern Third Circle is the site for three large department stores, the Modern Plaza (*Dangdai shangcheng*), the Shuang'an Department Store, and the Friendship Emporium, and two medium-sized ones. Since the early 1990s, the Urban-Rural Trade Centre, one of the largest retail facilities in Beijing, has become a landmark on the Third Circle at Changan Boulevard. The completion of the Gongzhufen Commercial Building and the Cuiwei Mansion, each with over 100,000 square metres of retail space, plus the originally existing Cuiwei Department Store, have enhanced the significance of the Gongzhufen retail node. The building of the Beijing Western Railway Station at south-eastern Gongzhufen in 1996 has brought about extensive retail development there. The Gongzhufen retail node and the Railway Station area are proximate to each other and expected to grow into one very large commercial complex. In addition, some major department stores located on the Fourth Circle or farther have become the focuses of those regions. The old city core has been



extensively renovated, exemplified by the New Dong'an Plaza in Wangfujing and the "Xidan Renovation Project". In general, the distribution of major department stores and new retail centres outside the old city area have demonstrated an evolving process of retail decentralization in the national capital.

### **7.5 Summary: Are Models Able to Explain the Emerging Retail Pattern in Beijing?**

Because of its capability in dealing with "self-sufficient" transactions, the central place theory is useful for explaining intra-urban retail distributions. Its assumptions on the orders of central places and their trade areas not only agree with the economic principle of the least effort, but also depict the nature of retail activity. Theoretical advances on the model since the 1960s have resulted in an increase in its applicability. However, its applicability in literature is based largely on the view that "the application of central place theory need not be rigid, mechanistic, so simplifying as to be sterile" (Warnes and Daniels, 1979). Since distance is seen as the only influence upon a consumer's choice between identical centres, the model does not incorporate factors such as goods quality, choice, price, competitiveness and suitability for multi-purpose trips. As a result, the use of a 'concrete' model to explain complex retail features has neglected some underlying details.

Applications of the central place model to the intra-urban retail distribution patterns in Beijing before and during the period of socialism are essentially

explanatory. While various levels of retail nodes were placed into the framework of the central place hierarchy, a few drawbacks certainly exist in the application. First, abstractions of retail strips to central places do not always conform to reality. The widespread occurrence of retail activities along streets has not been satisfactorily incorporated. Second, the application ignores several specialized retail functions such as Liulichang that formed in association with specific historic events. Third, its application to the Ming and Qing Beijing disregards the special supply to the palaces and the government courts. Fourth, the sizes of those central places were never measured, and their functional orders were estimated according to descriptions in the literature. This increases the possibility of personal bias in grading the retail nodes, resulting in over-estimation of some or under-estimation of others.

The applicability of the central place model in Beijing also depends on its socio-economic conditions at the time. First, the old city area was small. There were only 62.5 square kilometres within the city walls. During the socialist period, despite rapid urban sprawl in the 1950s, large retail facilities remained mostly within and around the old city and residents in the inner suburbs did their shopping primarily in downtown stores. Second, spatial variations of population density were small. The old city area was occupied by one- to two-storied houses, and the newly-expanded area during the period of socialism by four- to six-storied buildings. Third, there was hardly any public mass transportation facilities in the city before the 1950s. After that time, bicycles and buses became prevalent. Fourth, a grid road network dominated in

Beijing before the 1980s. The grid pattern, together with the public mode of transportation, provided roughly equal accessibility within the built-up area. In addition, there was little income disparity during the socialist period. Also, socialist urban planning promoted good accessibility of retail facilities to all urban residents, which resulted in a relatively even distribution pattern of low to middle-order retail functions.

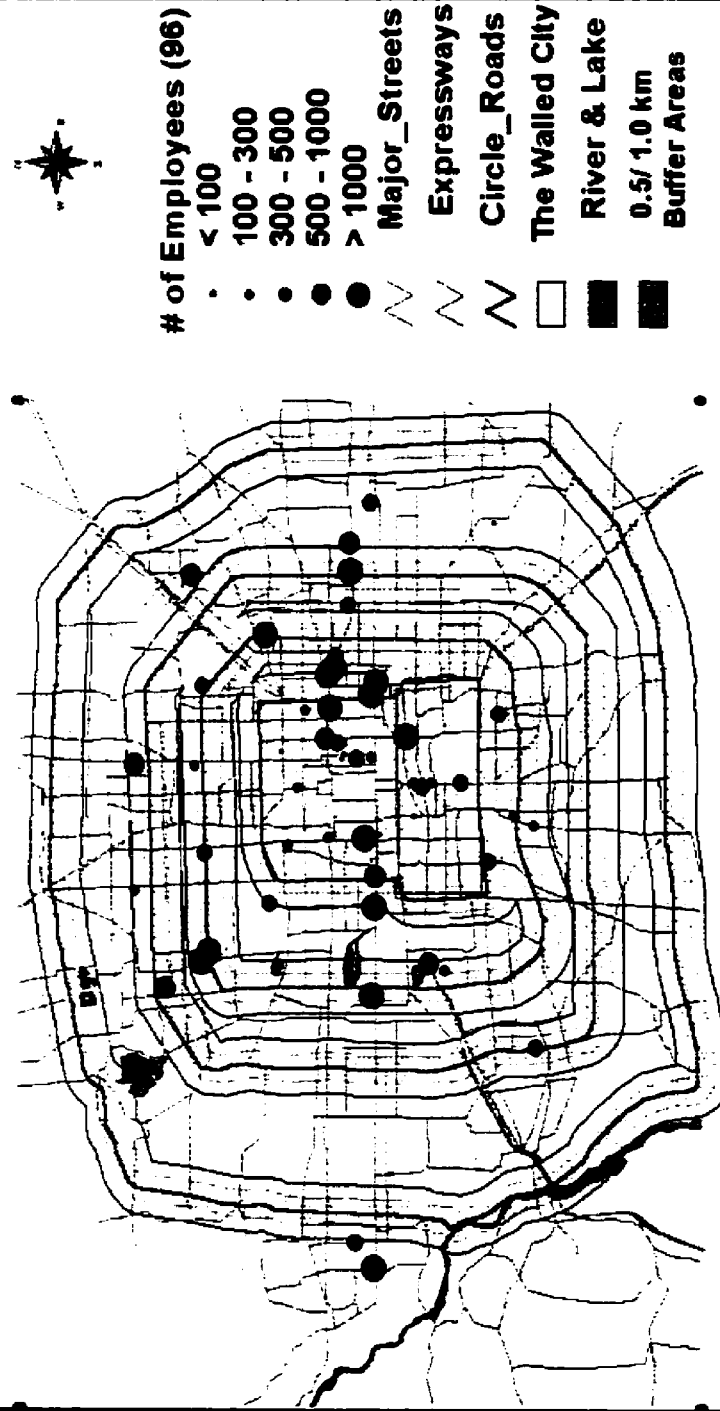
Since the reforms, both the spatial expansion and population growth of the built-up area have been significant. High-rise residential buildings proliferated after the late 1970s, bringing about spatial differentiation of population density in Beijing. Along with rapid economic growth, household incomes rose but disparity emerged and widened. Intra-urban transportation has been improved by the extension of subways and the increasing number of taxis and private cars. To cope with the rapid expansion of the urban area, the basic road network has been transformed into circle routes and radial roads. Most importantly, the reforms have introduced competition into retail enterprises to enhance profitability. Therefore, well-selected locations are necessary for retail enterprises to survive and to be profitable. Particularly, residential construction in the inner suburban districts was very active during the past two decades (Figure 6-12), leading to increases of population in those areas. As the demand for consumer goods increased, higher-order retail services were introduced into the recently developed areas. In fact, the emergence of a number of isolated groupings of major department stores in the outer areas other than in the inner city

since the reforms reflects the increase in both population density and residents' purchasing power in the inner suburban districts (Figure 7-9).

The spatial distribution of retail stores is influenced by accessibility and road patterns. In Beijing, the second, third, fourth, and fifth circle roads and several radial routes were built in the 1980s and 1990s, which changed the grid road pattern developed in the past. Residential development in the inner suburbs, together with the change in transportation modes, have promoted more commuting and more frequent shopping trips. The merger of traffic flows from the suburbs onto the radial routes and circle roads has led to concentration of retail facilities at major road intersections. The major department stores built between 1988 and 1996 in Beijing are largely located along the circles and several radial arterial routes (Figure 7-9). Their proximity to the major road network helps to attract customers and enhance their business. Taking the *intervening opportunities* of shopping trips to the central city, those new store locations principally demonstrated the interceptor rings model.

Retail structure is also controlled by many socio-economic and institutional factors, among which administration is an example. During the socialist era, the state and collective ownership dominated retailing until the 1980s. Since the economic reforms, the downward transfer of administrative power from the central or municipal levels to district level added an administrative boundary for those state and collectively owned enterprises. As discussed earlier in this chapter, administration has

**Figure 7-9 Major Department Stores Established between 1988 and 1996**



6 0 6 10 Kilometers

Data Source: Meiland Consulting Database  
Map Designed by Yinshe Sun (1999).

become a barrier to the expansion of chain stores. The effort by the district governments to become self-sufficient and independent of those large commercial centres outside their territories reflects an urban realm model in some retail sectors.

Beijing has developed under different political, economic and social systems. Much of the historical heritage still remains visible in the city and its retail pattern, thus making exploring the retail structure challenging. This also makes it difficult to use only one model to adequately explain such complex features. A model, including the interceptor ring model and the urban realm model, can only partially explain the retail pattern or specific aspects of the contemporary retail structure. However, applications of several different models may help to understand the retail structure in the city.

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**Notes:**

1. The annual net income here refers to the income available for living (*shenghuo shouru*), which is the disposable income with support payments, donations and other taxes deducted.
2. Before the reforms there were several central ministries, including the Ministry of Commerce, the Ministry of Grains, and the General Supply and Marketing Co-operatives, whose major tasks were managing commercial activities nationwide. The latter two were merged into the former during the middle 1980s. In 1992, the Ministry of Domestic Trade was formed by merging the former Ministries of Commerce and Materials. With the gradual downward transfer of administrative power, the central ministry shifted its enterprise business management to local levels or the enterprises themselves. Further reforms in 1998 changed the ministry to an administrative bureau within the State Economic and Trade Commission and defined the bureau's function as commercial policy making.
3. The multiple store locations do not have the same regulations as chains, even though they are owned and administrated by the same company.
4. The Editorial Committee of Beijing Almanac, *Beijing Nianjian 1994 (Beijing Almanac 1994)*. Beijing: Society of Beijing Almanac.
5. *Renmin Ribao (Haiwaiban) (People's Daily-Overseas Edition)*, July 15, 1997 (2).
6. *Renmin Ribao (Haiwaiban) (People's Daily-Overseas Edition)*, Jan.19, 1996 (2).
7. *Shijie Ribao (Toronto) (World Daily-Toronto Edition)*, July 15, 1996 (A17).
8. *Tsing Tao Daily (Toronto Edition)*, June 6, 1996 (B7).
9. *Renmin Ribao (Haiwaiban) (People's Daily-Overseas Edition)*, Feb.24, 1996 (2)

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10. *Renmin Ribao (Haiwaiban) (People's Daily-Overseas Edition)*, Jan.8, 1998 (2); Also, *Tsing Tao Daily (Toronto Edition)*, May 27, 1996 (B10).
  11. *Renmin Ribao (Haiwaiban) (People's Daily-Overseas Edition)*, April 25, 1996 (5). Also, *Renmin Ribao (Haiwaiban) (People's Daily-Overseas Edition)*, April 26, 1996 (12).
  12. Chen, Dong 1987. *Self-service Stores in Beijing* (unpublished B. Sc. thesis), Beijing: Department of Geography, Peking University.
  13. *Renmin Ribao (Haiwaiban) (People's Daily-Overseas Edition)*, March 27, 1995 (2).
  14. *Renmin Ribao (Haiwaiban) (People's Daily-Overseas Edition)*, Nov.3, 1995 (9).
  15. *Renmin Ribao (Haiwaiban) (People's Daily-Overseas Edition)*, Dec.12, 1995 (8); Also, *Renmin Ribao (Haiwaiban) (People's Daily-Overseas Edition)*, April 12, 1996 (9).
  16. *Renmin Ribao (Haiwaiban) (People's Daily-Overseas Edition)*, May 7, 1998 (2).
  17. Before the reforms in the early 1990s, every district had its own grocery company which, on behalf of the district government, administrated these district-owned stores. The company performed more as an administrative department than as a retail operator in the market.
  18. *Jingji Ribao (Economic Daily)* (Beijing), May 5, 1997 (2).
  19. *Financial Post (Toronto)*, Nov.19, 1998 (C15).
  20. The author counted the numbers from *Beijing Shiqu Dituce (Beijing Atlas)*, p.31, Beijing: China Map Press, 1993; and from Du, Baocai and Dong, Cuihua (eds), 1992, *Zhongguo Shichang Daguan (The Chinese Market Guide)*, pp.31-33 and 62-64, Beijing: China Atomic Energy Industry Press.

## **Chapter 8 Conclusion and Discussion**

The evolution of the urban structure and retail patterns in Beijing provides an interesting and diverse subject for scholarly inquiry. This geographical essay focuses on studying and interpreting the changing spatial pattern of the urban and retail developments in China's national capital. A diligent attempt has been made in the study to address the issues critically despite inconsistency and incompleteness of some urban data used in the analysis. It is hoped that the findings and conclusions of the study will stimulate further research into this important yet neglected topic in urban geography.

### **8.1 Major Findings and Conclusions**

#### **8.1.1 The Stages of Urban Development in Beijing**

Beijing was established as the national capital during the late feudal dynasties in China. Yuan Dadu, which first laid out the physical framework for the present city, was built entirely according to traditional Chinese capital city design. As a reflection of the political-social hierarchical structure of traditional Chinese society, this ideal urban design adhered to Confucian ethical rites and social order. This basic urban structure of Beijing was further enriched during the Ming and Qing dynasties. The city walls of imperial Beijing physically created a structure of concentric zones, which spatially manifested a social hierarchy. The Forbidden Palace formed the core, surrounded by the Imperial City that contained the residential quarters of government officials and imperial lineage. The Inner City embodied the residences of elite families



and the gentry class, and the Outer City which was built later was occupied by the poor and the lower class.

Urban development in socialist Beijing was heavily influenced by political ideology, planned economy and social organization. With an aim to build an egalitarian and classless urban space, general principles for urban planning in China were guided by socialist ideology. The communist government also favoured the development of "dispersed clusters" and satellite towns in order to decentralize urban functions from the central city of Beijing. While all construction projects and investment had to be approved through state economic planning, urban planning controlled their locations. It is particularly true when Beijing was transformed into a "production city". Social controls were exercised through walled work-units, enclosing people's workplaces, neighbourhoods, and social networks in self-sufficient communities. Therefore, the urban structure of socialist Beijing was a manifestation of the state political ideology, economic planning and social controls.

Since the reform, liberalization of the economy has become a major driving force to urban development. Resulting from both domestic economic restructuring and the participation of foreign capital, Beijing's urban structure displays a greater degree of differentiation. Even though, to some extent, the former walled-city and the socialist city of Beijing still retain their original urban landscape and functions, contemporary Beijing has made remarkable progress in urban development, bringing the city closer in form to other major Third World cities.

Urban development in Beijing shows three distinctive stages. There is no one individual factor that governed the whole process. Each stage had its prevailing

factors, resulting in different forms of urban development. However, the evolution of the city's spatial structure can be interpreted in the dynamic process of its political, economic and social fabric.

### **8.1.2 The Spatial Processes of Urban Development in the Midst of Reform**

Since the late 1970s, the reform and open-door policies have been generating new economic and social forces that have reshaped Beijing's urban development. As a result, competitions and transformations among urban functions caused by the new forces have led to a series of spatial processes in the city. Along with urban expansion, population increased rapidly in the outer zone of the city, with concomitant depopulation in the inner city. As in other Third World cities, temporary residents/immigrants increased significantly in Beijing, forming 'peasant' enclaves in the urban fringe areas. Industrial plants were also relocated from the inner urban districts to the industry tracts in the outer regions. The establishment of development zones and industrial parks in the suburbs also changed the industrial landscape in the city. Meanwhile, several major business centres have been developed, among which the most spectacular are the emerging CBD in the city's east and the Financial Street in the city's west. Mainly driven by market forces, these spatial processes in urban development only prevail in the midst of reform, creating a new urban structure in the city.

### **8.1.3 Changes in the Retail Market**

With economic growth and an increase in income disparity, the retail market, as reflected by changes in household expenditure structure and retail goods consumption patterns, has evolved into a new phase over the last two decades. While retail

employment experienced a substantial growth in all districts and municipal counties, the inner suburban districts, which were principally influenced by urban expansion, were highly competitive in the growth of retail employment. Multivariate regression models reveal that a number of socio-economic factors are closely related to the spatial change in the retail market in Beijing. A strong positive relationship which exists between the number of centrally-administrated units and retail sales reflects the dominance of the administrative function of the city as the national capital. It may also indicate that the central government and its subsidiaries have immense purchasing power and exert significant influence on retail sales through organizational consumption. The growth of the tertiary sector also indicates that it has a positive relationship with retail sales. Further, its close relationship to the total wages based on residential places rather than work place reveals the influences of the potential purchasing power of district residents on retail sales. Moreover, retail employment is found to have positive relationships with both the non-agricultural population and temporary residents. In a sense, they manifest the influences of both formal and informal sectors on urban retailing. However, all these socio-economic variables, as revealed by statistical models, aggregately impact the retail distribution pattern in the city at the district level.

#### **8.1.4 The Retail Patterns in Beijing**

The spatial patterns of the market place in Beijing over the dynasties were basically dictated by the city layout and its social structure. In Yuan Dadu there was only one dominant commercial centre, the Towers Market. Selection of its location was determined by the city plan and facilitated by its proximity to both the city's geometric centre and transportation hub. Reconstruction of the city and a change in the

mode of transportation, particularly the building of the outer walls, led to the dominance of the commercial centre at Qianmen in Ming and Qing Beijing. Owing to reconstruction of road networks and investment from western powers, Wangfujing became another major commercial centre during the early 20<sup>th</sup> century. As a result, a bipolar commercial structure emerged, reflecting changes in the social structure in Beijing during that period.

Under the centrally planned economy after 1949, retailing was confined to state and collective ownership. The number of retail establishments and retail employment in Beijing fell substantially. While urban retailing was essentially administrated under the central ministries which exercised vertical control through municipality down to enterprise units, retail facilities were organized into a hierarchical network of retail centres. However, due to their common ownership, retail establishments under different administrations in socialist Beijing neither competed against nor co-operated with one another. With the development of Xidan commercial centre in the city's west side as a consequence of significant urban expansion, a tripartite-centre pattern emerged. While the largest retail centres remained within the former walled area, a few secondary retail centres were established in the newly built-up area, particularly in the administrative-commercial centres of the four inner suburban districts.

Since the economic reforms, retail changes in Beijing have been characterized by a diversity of types of retail formats, ownership and modes of operations. While all types of retailing grew rapidly, large department stores had a significant increase, in terms of the number of employees, amount of floor space and volume of sales. Most of those large shopping facilities were located outside the old city. Even though there was still a

dominance of retail agglomerations within the former walled area, the rapid growth of major department stores brought about the emergence of several retail nodes at the circle roads and radial routes, including Chaowai, Jianwai, and Fuwai along the Second Circle, and the North-western Third Circle and the Beijing Western Railway Station. The pattern of the major department stores as well as these new retail centres was the direct result of an evolving process of retail decentralisation or diffusion. The nearest neighbour statistics relating to major department stores also supports the hypothesis of clustering of retail outlets in Beijing.

## **8.2 Discussion**

### **8.2.1 The Actors of Urban Evolution in a Changing Socio-economic Context**

The premise of three actors in urban development, the government or state, the entrepreneur, and the user or the masses, implies their interactive relationships in a socio-economic context (den Berg, 1982:1-10; Lowder, 1986:206-49). However, the type of society governs the actor's behaviour. Throughout the three distinctive periods of urban development in Beijing, the government played a dominant role. During the dynasty period, the emperors, as well as their governments, dictated the relationships among the actors. The masses and the businessmen obeyed the orders of the emperors and the governments. However, the business people, with the influence of their wealth, could make decisions on their business types and choose the sites for their business within commercial areas allocated by the government. During the socialist period, the Communist government flaunted itself representing the interests of the masses. It planned for both the state development and individual consumption, by means of its

centralized power on political, economic, and social controls. Since initiation of the reform, some political power has been transferred downward from the central government to local authorities, and individuals have begun to make their own choices on certain issues. However, given the current quasi-market system, it is wrong to assume that an individual's behaviour is goal-oriented, or is based on the objective of maximizing profits, as known in neo-classical economics. For example, most people still are not free to choose the location of their residence, to meet their requirements for a quality environment, proximity to work and shopping, or having good accessibility to schools, health care and recreational activities.

Influences of ideology upon urban planning aim at creating an ideal social environment, or a city based on certain aesthetic principles, or both (Hartshorn, 1992: 449-55). On the other hand, the physical setting of urban space should not only satisfy the needs for people's activities, but it should also be planned (and designed) to serve symbolic functions. Beijing, as elsewhere, is a case in point, especially for serving the latter function. Urban planning, either in the dynasty period or in the socialist era, intended to inspire political ideology, to enforce legitimacy, and to demonstrate social morality. However, the evolution of the urban structure in Beijing reflects a varying emphasis of the dynamic fabric of political, economic and social structures, depending on their relationships during the three urban development stages.

Entrepreneurs, as an actor in urban development and retail change, exert their influence on industrial location that will ultimately impact upon the spatial distribution of employment and other facilities within a city. However, under socialism during which the state and collective ownership dominated, there was no arena for

entrepreneurs to play their roles in making business or locational decisions. Selected and led by the personnel department of the CCP organizations, managers or directors of state-owned industrial establishments could not exercise their power over business affairs. Therefore, in most cases, they must give priority to political needs of the state rather than economic interests or benefits of the enterprises. Led by private and foreign-invested businesses, enterprises in Chinese cities since the reform have increasingly become profit-oriented. Commercial-administrative complexes and corporate offices have favoured a spatial concentration due to agglomeration economies, and the newly established large retail enterprises have also preferred fully market-oriented locations. Both of these demonstrate the active role of entrepreneurs on locational and business decision making.

#### **8.2.2 A Chinese City, a Socialist City, or a Third World City?**

Beijing is regarded as a typical Chinese city in terms of its roots in traditional Chinese culture. It bears no similarity either to Hong Kong, that was a former British colony, or to Shanghai that was divided into concessions by Western powers. Beijing was originally built according to the traditional Chinese urban design. Other capital cities at the provincial and prefecture levels also adopted similar designs at lower orders. As the national capital, Beijing leads political, economic and social changes that are the basic forces reshaping urban development in China.

Under the economic reforms, influences of the socialist planning system and ideological-political pursuit upon urban planning in Beijing are fading. Although the state is still under the communist government and controls the key economic sectors of the country, the market-driven economy has become the major force in urban

development. Socialist urban space, a model for social equity and justice, has been restructured according to profit-oriented planning principles. It appears that Beijing is shifting away in form and function from the classic socialist city, as described by Ian Hamilton (1979).

There are important similarities as well as differences between Beijing and Third World cities. According to a number of criteria, Beijing is a Third World city, characterized by low per capita income, poor infrastructure, economic dualism and rapid population growth. The rapid influx of temporary residents and the peripheral enclaves bear a similarity to those of its Third World counterparts. However, differences also exist between them. In Beijing, the state has successfully restricted over-urbanization through its economic and social controls. Even though a housing shortage also exists, no slums or squatter settlements have appeared in the Chinese capital. Temporary residents are allowed to live only in existing housing. They may be forced to leave the city if the municipal government deems that there are too many such residents. Moreover, socialism laid a sound foundation for a state-owned industrial economy. Both are different from those of other cities of the developing world. On the whole, the three-stage urban development in Beijing over time is irrelevant to the model of pre-colonial, colonial, and post-colonial as experienced by Third World cities in Africa, South and Southeast Asia, and Latin America (Hartshorn, 1992:47).

### **8.2.3 Economic Value vs. Cultural Heritage in Urban Planning**

Urban planning principles reflect political, economic and social concerns as well as their relationships in a society. The principle that should be applied to Beijing's



urban planning has been an issue for debate since 1949 when the communist government began to reconstruct the city. During the early 1950s, while a few Chinese planners favoured preservation of the walled city as it represented a masterpiece of Chinese traditional urban development, the experts from the former Soviet Union insisted that its reconstruction should be based on socialist political and economic objectives. Since the reform, planning and development of Chinese cities have been increasingly influenced by profit-maximizing principles, rekindling the debate once again. On the one hand, since the old city occupies the central part of the built-up area, it commands very high economic values for commercial development. On the other hand, the old city has inherited an invaluable cultural heritage, a unique symbol which enables Beijing to distinguish itself from Shanghai and Hong Kong. Since economic values and cultural heritage values are incomparable, any debate over them may lead to compromise in urban planning practice. Development of the Oriental Square in downtown Beijing provides a good example. This commercial-residential-office complex, located east of the Forbidden City and built with Hong Kong money, occupies 11 ha of land and has a total floor space of 900,000 sq.m. It was proposed to be a 20-storey structure, reaching a height of 70 meters<sup>1</sup>, which exceeded more than two times the height allowed by the city's building code for the old-city area. This development implies that entrepreneurs play an increasing role in urban construction, signifying a greater influence of market forces in Beijing's development. Meanwhile, it also indicates that, with the lure of profits, flexibility has been replacing traditional ideology and socialist doctrine in urban planning. In addition, the contradiction between the economic and cultural values has made it difficult for Beijing to develop

into a mono-centre structure, having to design a bowl-shaped skyline in the city.

#### **8.2.4 The Urban Development Models**

Beijing was originally built according to the ideal urban design for the imperial capital. While its enclosed urban area was physically separated by walls, its structure exhibited a pattern of concentric zones, each of which was occupied by residents of different political hierarchies and social status. Unlike the concentric zone model propounded by Burgess, which reflects the differential economic competitive power of broad social groups (Knox, 1987:60), those concentric zones within walls spatially represented the political-social hierarchy of the traditional Chinese society. In this sense, the urban structure of Ming and Qing Beijing actually manifested a model of its social structure.

Urban planning in socialist Beijing was predominantly under the influence of political ideology, and Soviet urban planning concepts and standards were adopted in the early to middle 1950s. In essence, both the central economic plans and social controls that governed Beijing's urban development were responsible for the different phases of urban expansion and the continuous sprawl of wall-enclosed work units in the city. With the demolition of the city walls, redevelopment of the old city and urban space outside the originally walled area were largely characterized by spatial uniformity and social equity. Socialist Beijing, to some degree, fitted the model described by Hamilton (1979), in terms of its presence of socialist neighbourhoods and residential districts, industrial zones and open belts. On the whole, socialist Beijing was represented by an urban structure that reflected the political interest and economic and social controls of the CCP.

Urban development in the era of reforms essentially was a process of spatial and functional specialization. Beijing in the late 1990s differs fundamentally from the city in the latter part of the 1970s. Changes reflect both the shifts in planning philosophy and policy and the prevalence of capitalization and Western influences (Gaubatz, 1995). Even though some relics of socio-economic systems remain, market-driven development has been flourishing, leading to spatial changes in urban functions. Differentiation among districts through an east and west division, concentric zones, and a multi-nuclei pattern is emerging. It has rendered Beijing visually similar to other cities in the Third World.

Urban space is a complex product of many different forces - historical, physical, cultural, political, economic, behavioural and spatial. The real world does not always correspond to the results predicted by spatial models (Johnston, 1990:99). Contemporary Beijing continues to bear the stamp of the past. Its urban space shows concentric zones, which correspond to different stages of urban expansion and reflect different planning principles and building styles. Reconstruction of the old built-up area further adds complexity to the urban structure. While the grid road system within the old city provides almost equal accessibility for retail development, the combination of circle roads and radial routes in the outer zones favours sectoral expansion and promotes the formation of business/commercial nuclei at major road intersections. Modern Beijing, being China's political and cultural centre (the Beijing Master Plan, 1993), still needs to preserve its historical heritage and cultural roots, and will inevitably serve, to a certain extent, political and symbolic functions. However, the influence of market forces has become increasingly dominant on urban development.

Thus, its urban structure is inexplicable with models built on any single factor.

#### **8.2.5 The Retail Structure Models**

Urban development heavily influences the evolution of retail patterns. Throughout the evolutionary process of retail patterns in Beijing, the city layout provides an initial pattern for market places, and economic and social systems govern the size, location and hierarchy of the retail centres. Application of the central place theory to the retail structure of the imperial period assumes that the highest-level commercial centre would grow at the centre of the city, and that the actual distribution of commercial activities would be influenced by local temporal and spatial factors. The Bell-and-Drum Towers Market in Yuan Dadu was located very close to the geometric centre of the city. During the early Ming dynasty, the location of the Forbidden City at the city centre led to the growth of commercial nodes around the imperial city. The building of the outer walls brought about Qianmen approximately at the centre of the imperial capital, and thus promoted it to become the largest commercial centre. The emergence of the bipolar retail structure during the late Qing dynasty and the Republican era was influenced by the increasing dominance of socio-economic factors.

The existence of socialist retailing was a result of the centrally-planned system. Besides the historical relics, its pattern bore the influences of economic planning and administrative decisions. Since the reforms, the influence of market forces on retail distribution has been increasing. Rapid urban sprawl, together with an increase in population and the expansion of the transportation network, led to the emergence of a multi-centre retail pattern. In particular, the model of interceptor rings, to some extent,

could be applied to the emerging retail pattern in Beijing. Meanwhile, the administrative structure responsible for the management of urban functions also contributed to the present distribution pattern of retail activities in the city. Downward transfer of political power led to "fragmented centralization" (Hartshorn, 1992:56) in the quasi-market economy. The relics of the former administrative structure, typically at the district level, attempted to form *urban realms* of retail activities in the city. In essence, Beijing's retail structure represents a mixture of models based on both the planned system of the past and the prevailing market forces, even though the influence by the latter is growing.

### **8.3 Implications and Prospects**

Findings of this research have implications in both Beijing's urban planning and retail policy-making. With respect to the primary concern of this study, the understanding of urban space in the capital developed according to different planning principles will help in our appreciation of cultural Beijing and the city's future redevelopment. Since the reforms, urban planning in Beijing has been adopting Western models, besides emulating planning methods of the former Soviet Union in the 1950s. Given its unique socio-economic settings and background, Beijing should not indiscriminately accept planning concepts applicable to other cities, particularly those of the developed world. Some urban problems that commonly exist in Third World cities could be avoided in Beijing, through its social control. The revelation of the spatial processes of population, industry and business centres, in fact, points out the development trends of those urban functions. For example, urban planning should

carefully address industrial relocation from the urban districts, and it also should promote a compatible spatial relationship between the emerging CBD and other functional areas. The findings on the evolution of the retail patterns indicate that a city's retail structure varies with its urban development, particular with its changes in urban layout, transportation network and population distribution. It also reveals that Beijing's commercial structure has evolved gradually from a mono-centre through a bipolar to a tri-polar, and eventually will evolve to a multi-centre pattern in the future. Meanwhile, the past socio-economic systems still have some impact on contemporary urban development and retail change. For example, the vertical administration and work-unit system have caused some local chaotic development in retail outlets. Nevertheless, implementation of new procedures, codes and standards in urban planning, such as zoning, may reduce negative impacts of the outmoded systems.

The present study has accomplished its objectives. It also provides a basis for future research. First, further investigations can be made on urban structure or retail patterns under the same framework as the present research. While the research focus is narrowed, the internal relationships and evolving mechanism of either of the two issues could be examined in greater depth. Comparative studies can also be undertaken between Beijing and other Chinese cities, as well as with post-socialist cities in Eastern Europe and other Third World cities. Second, because of the city's complex socio-economic context and its long history, Beijing's urban development and retail structure may be examined by combining the present approach with other methods of investigation in geography. For example, the interpretation of Beijing as "the power of place in modern China" (Samuels and Semules, 1989) may augment the current

enquiries. Investigations on shopping behaviour also could enrich the findings of retail structure in this research. Third, Chinese urban data are extremely scarce. With future release of detailed socio-economic data, for example, data enumerated at the street community level, will make possible the use of GIS tools and other types of modelling in the research.

In addition to its function as China's political and cultural centres, Beijing will continue to be an important economic focus in the nation. While the largest financial and economic centres of Hong Kong and Shanghai dominate over South China and the Yangtze Valley, respectively, Beijing will remain the largest in North China because of the strength of its existing economic base. When the market economy is fully developed in the country, Beijing's position, as the administrative centre of the Chinese economy, will be strengthened. Along with the restructuring of the Chinese economy and, to a greater degree, its participation in the world market, Beijing will continue on its way to modernization, and become a world metropolis. This study on Beijing's urban development and retail structure provides some suggestions as to how its urban planners might improve the efficiency of the city while preserving its cultural heritage. In a country where both political and social policies have dramatically shaped and reshaped urban development and where economic changes are taking place at an unprecedented rate, the exact nature of the new urban structure and a retail pattern will continue to evolve in China's national capital.

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**Note:**

1. "The Oriental Square project in Beijing has been approved again for construction" *Qiao Bao* (*Overseas Chinese Daily*), Dec. 22, 1998.

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